

# Master Thesis: Modeling process-based Business Transformations with BPMN – A Case Study

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## Abstract

In today's paced digital world businesses are increasingly shifting from traditional methods of software distribution (Software as a Product (SaaP)) to Software as a Service (SaaS) in order to meet customer demands and stay competitive. This transformation brings both challenges and opportunities for software companies looking to optimize their operations and enhance service delivery. To address this it is crucial to have an understanding of the Business Transformation (BT) process and best practices.

The objective of this master's thesis is to contribute insights in the field of BT with a specific focus on transforming an existing software company's Business Processes (BP) from SaaP to SaaS. The aim is to identify process patterns (PP) in BPMN models that serve as a guide for this transition ensuring efficiency and alignment with industry leading practices.

To achieve this research goal, BP Modeling serves as the core methodology enabling to model the current processes ("as-is") and design future processes ("to-be") for the SaaS model. The BPMN models provide representations of these processes facilitating clear communication and allowing for comparisons, between process changes. Moreover a review of existing literature on SaaS transformations, known as a Systematic Literature Review (SLR) is conducted to uncover the best practices and theoretical insights. The findings from this SLR serve as a guide for developing the to-be processes based on the as-is processes. Process comparisons of current and envisioned process states result in evolving PPs which serve as the base of validation expert interviews. These interviews provide practical perspectives from industry experts who have firsthand experience in leading or being part of similar BTs. Based on the results of the interviews, relevant PPs are ranked and explained, in order to showcase their benefits for a BT.

The process model comparison brought forward ten PPs that have influence on at least one process domain. The domains were developed by coming up with a customer life-cycle that includes the five most important BPs domains of the case study company. The PPs were validated independently from six industry SaaS and BT experts and resulted in frequently used patterns in the modeled Transformation, being rated the most important on average by the experts.

It is essential to acknowledge a limitation in this research scope as it focuses the as-is process models specifically on Flexopus, a German based software company. Therefore generalizing these findings to software companies may have limitations. Additionally it is recognized that relying on expert interviews and literature reviews might introduce biases that require careful consideration during the analysis and interpretation of data.

**Keywords:** Business Transformation, Business Process Management, BPMN, Software-as-a-Service, Business Process Modeling

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# 1 Introduction

In the dynamic landscape of the digital era, businesses continually face the challenge of adapting to rapid technological advancements and shifting market demands [3]. As competition intensifies, organizations seek ways to enhance their operational efficiency, customer experience, and overall performance. One transformative strategy that has emerged as a vital approach for organizations is Business Transformation (BT). BT involves a comprehensive assessment and overhaul of a company's processes, structures, and technologies to achieve strategic objectives and sustain long-term success [4].

This Master's thesis focuses on the software industry, a sector experiencing significant transformation driven by the advent of cloud-based technologies and evolving customer preferences. Traditional software distribution models (also known as Software as a Product (SaaP)) have given way to the Software-as-a-Service (SaaS) model, characterized by cloud-based, subscription-oriented services. [5]

Embracing the SaaS model offers software companies the potential to achieve greater flexibility, scalability, and customer-centricity [6]. However, the transition from offering SaaP towards SaaS distribution demands a strategic and well-guided transformation process to capitalize on the benefits while handling potential challenges.

In the pages that follow, this thesis embarks on a comprehensive journey, delving into the intricate relationship between Business Process Management (BPM) and BT. The introductory section not only outlines the key problem statement, research gap, research questions, and expected outcomes but also details the research methodology employed throughout this study. Moving forward, the subsequent sections offer an in-depth exploration of the contextual backdrop of BT and BPM. These sections delve into the core definitions, explanations, fundamental concepts, and steps of BPM. Moreover, the impacts of BPM, especially in the context of BT, are examined. Additionally, the discussion extends to business process modeling (BP Modeling), shedding light on its pivotal role in the digital era. Furthermore, the evolving landscape of software distribution models is discussed, with a focus on traditional software (SaaP) companies and the dynamic paradigm of SaaS. The research design section has a multifaceted approach with different Methodologies, including Design Science, BP Modeling, Systematic Literature Review (SLR), and Expert Interviews. With each subsequent page, this thesis tries to enrich the comprehension of how BPM can be harnessed to facilitate a successful BT with the help of Business Process Modeling and Notation (BPMN). This thesis work with a lot of abbreviations to make it more readable. A full list of all the abbreviations used, can be found in the appendix of this paper [A](#).

## 1.1 Problem statement

Over the last few years, there has been a shift in software distribution. Traditionally, a company in need of a specific software solution has to contact a software development firm or a software distributor. Phone calls, negotiations, agreeing on roll-out road maps, and often a one-time license payment between buyer and seller follow. This all takes time and frequently leaves the buyers' company's IT department alone with installing area-wide on-premise and following up on Software Maintenance within the

corporation. [7]

The new solution, known as SaaS, allows users to access software that is hosted on the cloud and is automatically updated and maintained by the software production firm, with no additional effort on the user's part. Payments were also changed from a one-time payment to a monthly subscription model. Because of predefined software packages and automated contract and payment systems, there is typically no longer a need for prior extensive contact between buyer and seller, as there once was. [5]

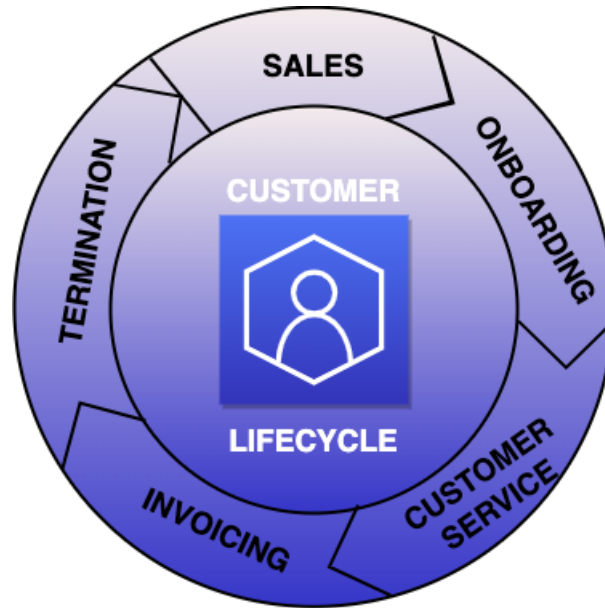
According to a Insider study from 2021: Just 38 percent of companies were relying on SaaS for at least 80 percent of their software needs in 2016. 86% of organizations expect most of their software needs to be met by SaaS by 2022. [8]

Software companies are shifting (or 'transforming') their distribution models from SaaP to SaaS because the market is increasingly demanding the new way, which is consistent with the trend of shifting power to the end user [9]. Buyers are gradually gaining control of steering the market in their desired direction, typically leaving producers with no choice but to follow the demands or risk losing market share, leading to bankruptcy in the worst-case scenario, therefore making a BT unavoidable. BT incorporates fundamental change in how a organisation operates. This can include technology, personnel and also processes [10]. This thesis focuses on the process aspect of a BT.

But that shift can be difficult, especially when there are no process-based step-by-step instructions for how to get from the current situation to a more beneficial. Also, because it is a relatively new problem with few practical references (see Research Gap chapter 1.2). Considering the fact that 70% of all BT fail, according to McKinnsey [11]. It makes the development of some kind of a structured plan extremely necessary. In the same publication of McKinnsey, the consultancy firm emphasizes that companies wanting to go through a Transformation, follow a Transformation 'recipe'. This recipe entails to identify a company's potential and then build plans to deliver that potential. [11]

The goal of this master's thesis is to contribute to the knowledge gap of transforming a software firm's BPs from SaaP to SaaS, to develop towards that recipe, and bringing organisations a step closer to successful BT. The closing of the gap is provided by utilizing BP Modeling, in detail the modeling language BPMN, which visualizes the as-is-processes of the current models of a real-life case study software company, and the to-be-processes of the target model, which represent the desired outcome. Step by step, the various aspects of the company are compared in both process models. Existing differences are captured in process patterns (PP), where the specific necessary changes are highlighted and explained. Furthermore, it is explained in what ways the SaaS model provides benefits over the traditional model. Examples of such BPs include Sales, Onboarding, Customer Service, Invoicing, and Contract Termination. These five process domains together equal the 'Customer Lifecycle'. The Customer Lifecycle, or CLC, is a concept that is established for this master thesis, based on Process Interviews with an executive of this Thesis' case study company, 'Flexopus' [12]. The CLC (see figure 1) represents a full cycle a customer eventually goes through in their customer journey, from the starting point of closing the Sale until they





**Fig. 1** Customer Lifecycle (CLC)

eventually no longer need the services of Flexopus. Additionally, it is also elaborated on advantages and disadvantages of SaaS and structural and organizational changes that are necessary to complete such a BT successfully. To summarize: The starting point are five BP models, each for the current as-is situation and five models each for desired to-be SaaS models. All models in each process domain are compared to each other (five process domains, 2 models (as-is & to-be) per domain).

The [Research Questions](#) are partially answered with the assistance of a German-based software company “Flexopus” that sells desk-sharing software in various countries. Clients can access their software via the browser because it is hosted in the cloud. However, the Sales, Onboarding, Customer Service, Invoicing and contract Termination BPs (CLC) remain ‘traditional’ [5.3](#), next to other BPs which are not looked at closer in this thesis because of time constraints and because they might not be affected during the general BT. Flexopus intends to fully transition their BPs towards the SaaS model in the near future. With the help of Flexopus it is possible to capture the current process situation.

The to-be models are developed by best practices that were already identified in recent research, through a SLR. These synthesized best practices then guide the BP comparison of as-is and to-be models. As a result, process pattern (PP) are developed showcasing the most important differences between the two models and also explain the steps that have to be taken to achieve the desired outcome (to-be) and why that outcome is more beneficial than the as-is situation. Therefore, this thesis provides a set of pattern from model driven comparison that support companies in the transition (BT) to SaaS. To validate these results, Expert Interviews with fitting

industry players are conducted. The validated PPS are helpful in the software industry for a successful BT, but also for research, since there are not many process-based approaches to the topic in general.

## 1.2 Research Gap

Speaking about the lack of process-based approaches for a BT, it is to mention that there are almost no papers that explore the topic with the help of BPMN. One in-field case study used BPMN to model a BT of a company that wanted to establish an intranet based web portal. The results were of positive kind: BPMN was determined to be well-suited to the needs of this BT project. The constraints of BPMN were successfully solved by utilizing UML extensions. [13]

In the [Related Work](#) section following later this paper, more publications of this kind are going to be presented, with a broader focus on BT and BP Modeling, and not necessarily BPMN in order to have a broader overview.

To enhance research in the direction of BP Modeling a BT is beneficial and deserves endeavor. Modeling parts of a BT while looking at the processes of the business and visualizing them with BP Modeling has several advantages. A study [14] confirms that compared to process descriptions, process models are more formal. Process descriptions are detailed, but rather focus on informal descriptions than formal notations or models. The authors of the paper conducted interviews with 12 companies about the requirements they have for an ideal process description. The practitioners often wished for a graphical representation which is easy to understand and customizable, indirectly describing BP Models, like for example BPMN. The authors furthermore mention that problems arise when trying to understand current processes that were described by the participating companies, since each company used different words for different process objects. It is to mention that the authors are active in the field of BPM since many years. This represents another indicator, why uniform Process Models bear benefits in universal understanding and to foster and ease collaboration.

Furthermore, there are other papers suggesting that modeling BPs is better than just describing them. Markovic [15] proposes a BP Modeling framework based on semantic technologies to improve the quality of BP models. The publication claims that BP models enable a better understanding of BPs, identify their improvement options, facilitate communication between business analysts and IT experts, and serve as a basis for the management and execution of processes in IT systems. Lodhi [16] presents a modeling approach that allows for the analysis of BPs at an abstract level as well as at finer granularity. Polyvyanyy [17] argues that well-structured process models are easier to comprehend, have fewer errors, and are better suited for analysis and optimization. Yu [18] proposes a modeling framework consisting of two components that describe intentional dependency relationships among agents and the issues and concerns they have about existing processes and proposed alternatives. These papers collectively suggest that modeling BPs provides a more comprehensive understanding of the processes and can lead to better process improvement and management, which therefore emphasizes the need for this thesis to also shed light on the BP Modeling aspects of a BT.

In this thesis, the BT with the help of BP Modeling – to be concise, BPMN – is

showcased specifically on the transformation example from SaaS (on-premise) to SaaS distribution (on-demand). Also in this field there is more research to be done. There is a lack in theory about the transformation from traditional to SaaS in Small to Medium Enterprises (SME), since mainly existing literature focused on big companies like Oracle and SAP [19]. Further research is necessary to assist smaller companies in their transformation, which is aided by Flexopus, a small-to-medium software enterprise, being the object of the case study. The author also provides some future research questions, which are also influential in developing the [Research Questions](#) of this thesis, e.g., “How software-intensive firms have handled the transformation and what has been the lessons learned?”; “What are the required steps in transformation?”; “What has been the critical factors in business model transformation?”; “What guidelines could research give to companies that are planning of transforming their product offering and business model?”. [19]

In the following sub chapter, the relevant Research Questions for this thesis are presented.

### 1.3 Research questions

The goal of this master thesis is to contribute to the research of BT in the software sector, especially with the utilization of BP Modeling to achieve a successful BT. On a more substantial level, the goal of this thesis is also to contribute to the knowledge gap of transforming an existing software firm’s processes from SaaS towards SaaS. The answer to this question is given with the help of BP Modeling, which visualizes the as-is-processes of the current situation in the case study company, and the to-be-processes of the desired outcome model. Step by step, both models in each process domains (the CLC) of the software company are compared to each other, and existing differences are highlighted and used for the development of PPs. Furthermore, it is explained in what ways the SaaS model provides benefits over the traditional model, such as in Sales, Onboarding, Customer Service, Invoicing, and Termination BPs. As a main research question (MRQ) this thesis investigates the following:

*MRQ: How to model a Business Transformation from SaaS to SaaS with BPMN?*

Based on the main research question, further sub-research questions (SRQs) emerge:

*SRQ1: What are the key business challenges and considerations involved in the Business Process transformation from SaaS to SaaS?*

*SRQ2: How is a Business Transformation from SaaS to SaaS depicted with BPMN?*

*SRQ3: What process patterns arise from the Transformation of the as-is towards the to-be models?*

The research questions are answered with the assistance of a German-based software company 'Flexopus' that sells desk-sharing software in various countries. Clients can access their software via the browser because it is hosted in the cloud. However, their

CLC BPs still remain traditional at the moment (see in as-is process models chapter 5.3). Flexopus intends to fully transition to the SaaS model in the near future. With the help of the case study company it is possible to capture the current process situation (as-is) and detect patterns that arise when comparing these processes to the desired SaaS-processes (to-be). This shift is guided by an SLR. The resulting patterns are then validated through semi-structured expert interviews. SRQ1 is also ought to be answered by existing research through an SLR by detecting a range of issues that businesses typically are confronted with during this kind of transition. The detailed procedure of that is explained in the [Research Design](#) chapter. The second SRQ is answered by familiarizing with and presenting the BP modeling language BPMN and showcasing how Process Models and the BT of the CLC processes are visually represented in this thesis. SRQ3 is worked out by comparing the as-is and to-be model of each BP domain (CLC) and to then develop PPs showcasing the required changes for the desired transformation and its benefits.

## 1.4 Expected Outcome

The expected outcome of this master thesis is to contribute to the knowledge gap of transforming a software firm's BPs from SaaP to SaaS. The closing of the gap is provided by utilizing BP Modeling, in detail the modeling language BPMN, which visualizes the as-is-processes of the current situation and the to-be-processes of the target models, which represent the desired outcome. Step by step, the BPs of Flexopus are compared in both process models, and existing differences are captured in PPs, where the specific changes are highlighted and explained.

PPs are guidelines or best practices, representing generalized organizational behavior. These patterns capture recurrent behaviors in business operations and help reduce the effort needed to produce process models and align them closely with software designs of enterprise applications. They are based on both logical and graphical types of representations. For instance, PPs in BPMN are typically used to represent common sequences of process steps or activities that are reusable across different process domains, which in the case of this thesis focus on the aspect of a BT. PPs also add value, help users to understand existing models, customize these models to fit user needs, and assist in constructing new models. [20]

In practice, this research captures the present process scenario (as-is) with the support of Flexopus and their current process structure evolving around their CLC. Then, to-be processes with the insights and guidance of existing research and the existing process base (as-is) are developed. As a next step, each as-is process of the CLC is compared with the corresponding to-be process (e.g., Sales process as-is vs. Sales process to-be). The aim of comparing the process models is to identify specific PPs that showcase the transition from SaaP to SaaS and the benefits of these transitions. To define the concept of PP in the context of this thesis more in depth: PP represent in the realm of BPM and transformation, a set of best practices, and guidelines that encapsulate recurrent behaviors and strategies in organizational operations. These patterns are derived from a systematic analysis of BPs, visualized through BPMN, and are aimed at providing a replicable framework for addressing common challenges and objectives in specific contexts, such as the transition from SaaP to SaaS.

In essence, PPs are generalized templates distilled from empirical observations and theoretical frameworks, that can be used by many companies being in a similar situation. They serve multiple purposes: simplifying the design and implementation of BPs, ensuring consistency and efficiency across similar process scenarios, and providing a foundation for process improvement and innovation. PPs have influence in the transformation of at least one BP of the five CLC process domains. This means, they can in theory also be necessary for the process transformation of all five process domains. This will show in later chapters 9.

A close related concept from Software Engineering compared to PPs, as defined in this thesis, is 'Cross Cutting Concern'. Cross-cutting concerns in software development refer to functionalities or features that affect multiple parts of a system, often in a non-modular way. These concerns often include aspects like logging, security, and error handling. [21] [22]

Similar to the concept of Cross cutting concerns, the PPs can affect multiple BP domains, but at least affect one BP domain. In the case of this thesis, the five different process domains constitute CLC 1.

These patterns are not rigid prescriptions but adaptable frameworks, allowing for customization based on the unique characteristics and needs of each organization.

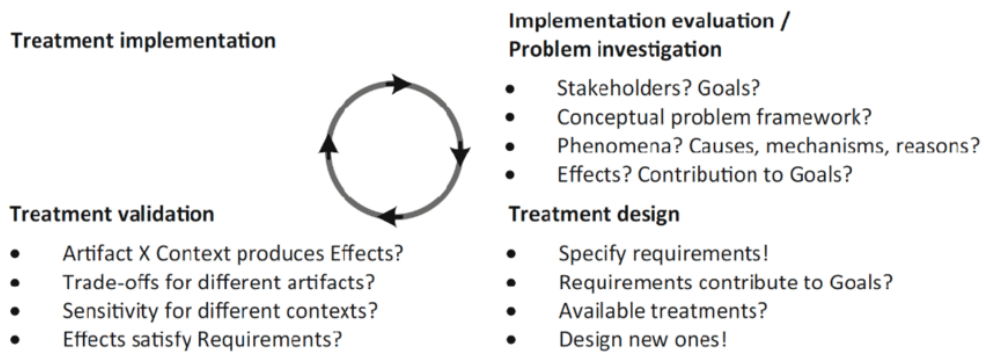
The end result of this study project may not only be used by Flexopus, but also by other software companies considering, or going through a similar change, leading to a possibly increased efficiency, scalability, cost-effectiveness, and customer satisfaction. Representing a potential competitive advantage that can be gained through successful BT. These PPs outline the steps, considerations, and recommended approaches, for smoothly shifting from SaaP to SaaS.

## 1.5 Research Methodology

For the use of research methods, there are mainly four methodologies in use: Business Process Modeling [23], the Systematic Literature Review (SLR) [24][25] and Expert interviews [26]. These methodologies are operated under the base structure of the design cycle by the design science methodology of Wieringa [1].

Business Process Modeling (BP Modeling) is utilized to model all the processes showcased in this thesis. Beginning with the current as-is BPs of Flexopus evolving around their Customer Lifecycle (CLC: Sales, Onboarding, Customer Service, Invoicing, Termination). After that, the to-be processes are mapped out. They represent ideal processes for SaaS companies. These to-be process models are created with the guidance of the SLR and use the as-is processes as their starting point, in order to still keep the relation to Flexopus, a real-life scenario.

The SLR focuses on defining the best practices coming from literature about how to transform a software business from SaaP to SaaS in general, and also with focus on the BPs. These findings serve as the foundation for guiding the transformation of Flexopus and ensuring that the process follows science-leading practices. Additionally, the SLR contributes to the theoretical understanding of SaaS transformations in software companies, which is a necessity when speaking with experts in this field later on in this research project for validation interviews. As a following step, the comparison of as-is



**Fig. 2** Design Science Cycle; by Wieringa [1]

and to-be process models is undertaken, which enhances development of BP patterns. Expert interviews, following the Design Cycle (see figure 2, are for the treatment validation, in order to find out if the PPs are relevant in their results. These experts are interrogated about their experiences in transforming BPs of a traditional software business into a SaaS model. The expert validation interviews are meant to showcase the practical aspect of these kinds of BTs and demonstrate if theory and practice are similar or divergent in their statements, and if a common ground can be found. That common ground, in the end, is used to validate the findings considering the identified PPs.

For completeness: The SLR serves for the Problem Investigation phase of the Design cycle, and BP modeling is part of the Treatment Design (see Figure 2 for the phases of the Design Cycle). Using the four presented methodologies in combination with each other enables to gain insights in to a real company, find best practices in literature, and receive validation from in-field experts to develop the results. This combination provides a solid ground for tangible and applicable findings. A detailed description on the use of the methodologies together with threats to validity is presented in the [Research Design](#) chapter.

## 2 Context

In the context chapter of this thesis, different terms are elaborated on in their definitions, fundamentals, and delimitation. It is important to understand these concepts to follow the research processes of this thesis. The Concept chapter consists of the sub-chapters 'Business Transformation' (BT), 'Business Process Management' (BPM), 'BT with BPM', 'Business Process Modeling' (BP Modeling), and 'Software Distribution Models'.

Even though this paper focuses on a BT of a software company's BPs with BPMN, it is still important to understand the full context of this research area. Since, only modeling processes is not the only step to a successful BT, these terms are put into context and their relations to other connected concepts are shown and showcased. Figure 3 reflects the hierarchy of concepts that are important throughout this thesis and put into perspective. Starting from BT at the top it divides down into other areas next to BPM part of a successful BT [4]. Following the path a level down, it shows the different aspects and steps of BPM, based on the Fundamentals of BPM by Dumas et al. [2]. Process Discovery and Process redesign in the BPM cycle utilize BP Modeling to create Process Models, which can be drawn up by different modeling languages like 'UML Flowcharts', 'Activity Diagrams', or in the case of this thesis, 'BPMN'.

In the following the different, for this thesis important, concepts are presented from top to bottom.

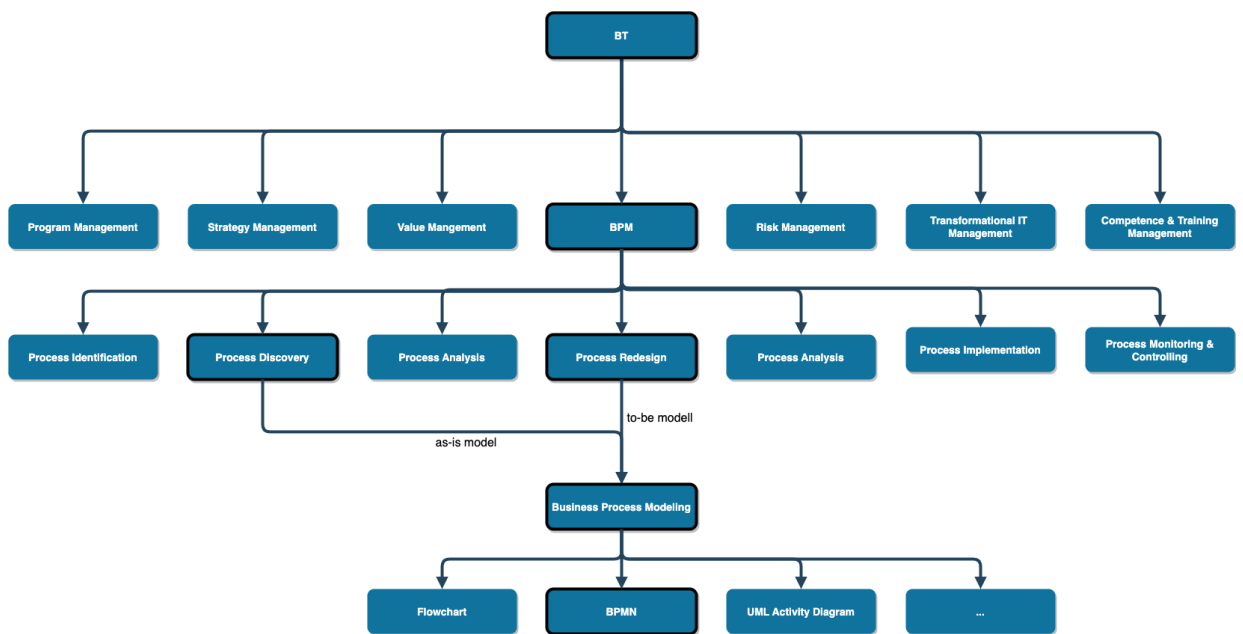


Fig. 3 Concept Hierarchy and relations

## 2.1 Business Transformation

Companies often undergo changes, which are commonly referred to as Business Transformations (BT). BT involves an evaluation of the organization's BPs, structure, culture, and technology in order to identify opportunities, for change. This transformation process encompasses adjustments in the company's strategy, operations, products, or services customer experience and even its workforce. It necessitates investments in technologies or systems and a shift in the company's mindset and culture to embrace innovative approaches. Ultimately, the goal is to enhance competitiveness and performance while staying relevant in the market. BTs are often triggered by factors such as market conditions, technological advancements or legal requirements. Internal motivations, like streamlining operations improving efficiency or adapting to evolving customer expectations also play a role. [4]

A firm can undergo changes that affect aspects of its operations. Some common examples include outsourcing BPs, making changes to the business model, engaging in mergers and acquisitions, or implementing restructuring actions within or between departments or organizations [27].

To guide and teach the implementation of large changes in companies, a number of change models have been identified in the literature, including Jick's ten-step model [28], Kotters eight-step model [29], and General Electric (GE)'s seven-step model [30]. The Ten Step Model, which is also referred to as "Jicks' Ten Steps" was created by Robert J. Jick. It serves as a framework, for managing change. It is widely employed to steer the implementation of changes, within a company or organization.

Differentiating between change management and BT is an idea in the realm of studies. While they are distinct, these two concepts are closely related, contributing significantly to the achievement of success. Change management refers to the process through which an organization navigates towards its desired state. It encompasses strategies and programs designed to attain goals. Specifically, change management centers on the actions and protocols employed to effectively manage and execute changes, within an organization. [31] On the other hand, BT entails a broader approach to change in an organization. It involves a fundamental shift in various aspects of the organization, including its vision, strategy, culture, and operations.[32] Change management primarily concentrates on targeted initiatives or projects that aim to enhance the organization, whereas BT surpasses these endeavors by encompassing a restructuring of the organizational framework. For instance, an instance of change management would be the introduction of a software system, in an organization. In contrast, BT involves reassessing and revamping the business model. Change management could entail implementing a software system to streamline operations, while BT focuses on restructuring departments and processes to effectively respond to evolving market dynamics.

The model offers an approach to effectively handle and navigate the challenges of change. Although its main focus is, on change management, it can also be applied in BT initiatives. In fact, Jicks' model is frequently compared to Kotters' eight step model for transformation as they both serve as frameworks for managing change, within a business context [33]. Overall, Jicks' model proves to be an asset, for organizations seeking to bring about change and propel BT. To gain a grasp of these



frameworks, the 10 steps outlined by Jicks' Framework are divided into [28]:

1. Establish a Sense of Urgency: Create awareness among stakeholders about the need for change by highlighting the risks and opportunities associated with the current situation.
2. Form a Powerful Coalition: Build a team of influential and committed individuals who lead the change effort. This coalition should have the necessary skills and authority to drive the change process.
3. Create a Vision and Strategy: Develop a clear and compelling vision for the desired future state of the organization. Define the strategies and action plans that help achieve the vision.
4. Communicate the Vision: Effectively communicate the vision and strategy to all members of the organization. This step involves engaging in open and transparent communication to ensure understanding and alignment.
5. Empower Broad-based Action: Encourage employees at all levels to take ownership of the change process. Empower them to make decisions and take actions that align with the vision and strategy.
6. Generate Short-term Wins: Celebrate and communicate quick wins and achievements along the way. This helps maintain momentum, build confidence, and demonstrate the benefits of the change effort.
7. Consolidate Gains and Produce More Change: Build on the successes achieved in the previous step. Use the momentum to tackle more significant and complex change initiatives.
8. Anchor New Approaches in the Culture: Embed the new approaches, behaviors, and practices in the organization's culture. This step involves aligning systems, processes, and structures with the desired changes.
9. Monitor and Course Correct: Continuously monitor the progress of the change effort. Identify any deviations from the plan and make necessary adjustments to keep the change initiative on track.
10. Institutionalize Change: Ensure that the changes become the new norm within the organization. This step involves reinforcing the desired behaviors and practices through systems, policies, and leadership support.

The models mentioned, such as Jicks model and other popular change models, can be categorized into three phases; the decision and planning phase, the implementation phase and the reinforcement phase. Each phase of the change process may consist of sub phases that require an amount of time. Mistakes made in any of these phases can have consequences for the overall change effort.

The first phase, known as the decision and planning phase, plays a role in BT. During this stage, companies evaluate their organization, market conditions and competition to determine the need for change. They then create a vision, effectively communicate it to others and empower them to take action. Both Kotters eight step model and Jicks ten step model dedicate a number of steps, to the planning phase (specifically the first six steps). These steps involve evaluations and emphasize the importance of investing sufficient time and effort into planning before implementing any changes.

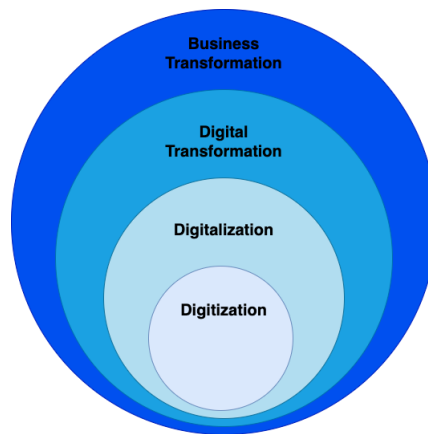
The implementation phase involves carrying out the work required to achieve the desired goals identified in the previous phase. Additionally, this stage also includes establishing monitoring systems to track progress throughout implementation. This entails developing metrics and implementing them to analyze and monitor program progress. During the third stage, known as the reinforcement phase, companies place their attention on implementing lasting changes within their organization. This entails reinforcing and embedding the change into the company's culture, following the models proposed by Jick and Kotter. For example, GE's approach emphasizes the development of long term strategies and aligning systems with the implemented change. The reinforcement phase also includes mechanisms such, as communication and learning from past transformation experiences. Ultimately, its aim is to ensure that the change becomes a part of the organization's operations.[34]

In the modern day and age, BPM is often utilized as a process that enables operational priorities to exploit the capabilities that are frequently produced by technologies. Digital tooling, complex software such as risk assessment, forecasting, and transportation planning tools, and IT and information systems are examples of those technologies [34]. Venkatram [32] discovered in his paper about IT-enabling BT, that the potential advantages of IT implementation grow in proportion to the degree of the change in Business (BT). Additionally, he states that in general, firms typically experience incremental transitions. This procedure starts with steps like localized exploitation and internal integration. They eventually advance to revolutionary stages comprising BP redesign, business network redesign, and business scope redefinition. These shifts are being driven by competition and the growing desire to provide greater value to customers. BT with the use of technology often goes inherent with the term of Digital Transformation (DT). According to Vial [35], DT is defined as the modification of existing business models as well as the development of new ones via the use of digital technology. BT and DT are two different concepts, although they are often used interchangeably. Since DT portrays a big topic since the last years, there have been many definitions for the term. For example, Reis et al. [36] define DT as "the use of new digital technologies that enables major business improvements and influences all aspects of customers' life." Whereas Henriette et al. [37] take this a step further and define DT as more than only a technology transition, but alterations affecting business models, operational processes, and end-user experience. This represents the meaning of the term, with which this thesis is going along when DT is mentioned. However, it is worth noting that in the realm of Digital Transformation, Digitization, and Digitalization are frequently used interchangeably in both research and business based on experiences. This can be misleading, as each term actually holds a meaning. Delving into the details; Digitization specifically refers to the process of converting analog information into a digital format [38]. This can include tasks such as scanning physical documents and saving them as PDF files on a computer's hard drive [39]. Digitalization takes things a step ahead by including elements, in the products or services provided. To illustrate, a company might integrate features into their offerings like providing online payment methods or adopting a customer relationship management system [40]. DT, the extensive one of the three concepts, encompasses

more than just converting analog information into a digital format. It also involves implementing business models and digital platforms that revolutionize how a company functions. This can include embracing technologies, like automation, artificial intelligence and the Internet of Things to simplify operations boost productivity and enhance customer satisfaction. [41].

It is important to mention that even though many BTs nowadays are based on technological change, which is associated with DT, BT and DT are not the same exact concept. BT and DT are two distinct processes, where BT refers to the comprehensive process of changing an entire organization, involving changes in strategy, structure, culture, and operations. It essentially encompasses the overall evolution and improvement of a business.[42] On the contrary, DT is specifically about integrating digital technologies into all business activities. It requires fundamental changes in technology, operational procedures, culture, and the means of creating new products and services.[43]

So, while BT involves a broad organizational change, DT is more focused on leveraging digital technology to enhance business operations and offerings. The Venn-Diagram in Figure 4 shows the relations between the four terms.



**Fig. 4** Term-Relations Venn-Diagram

Customers desire is next to competitors, government and regulators, as well as investors, a pushing force towards DT caused by the companies' environment. According to a study by Tabrizi et al. [44] 70% of all DT attempts in companies fail. There are several reasons why a DT can fail. The most common ones entail lack of top-level management support, inadequate implementation and execution of the transformation process, lack of skills and competencies, opposition against changes, or conflicts of interests [4].

Another paper, concentrating on the failure of BT, claims that only 12% of all attempted BTs are successful. The source leads this back to a lack of qualified BT Managers and proposes a framework on how to find qualified candidates. [45]

Based on these numbers, it appears more than necessary to investigate Transformation efforts and try to close the knowledge gap in order to achieve higher success rates. This thesis is a step towards that outcome.

## 2.2 Business Process Management

Next to being receptive to allowing broader structural change in a company to happen, an open mind for digital solutions is also beneficial for the C-level (CEO, CTO, etc.) and the whole staff. It is also important to have a plan on how to integrate these digital solutions into the structures of the company and how these solutions interact with each other. This is where Business Process Management (BPM) comes into play as a significant concept for a firm. As Reijers [46] already mentioned, BPs build the fundament of every company.

According to Uhl and Gollenia [4] the discipline of BPM is a part of BT as a whole concept, next to other disciplines like Strategy Management, Value Management, Risk Management, Transformational IT Management, Competence and Training Management, and Program Management. This paper concentrates on BT with BPM and tries to find a way to manage a BT with a primary focus on BPM and BP modeling [Business Process Modeling](#). The purpose of the next subchapters is to provide an overview of the definitions and basics of BPM. Go over the fundamentals of BPM, differentiate the term to another concept called "Business Process Reengineering" (BPR) and lastly showcase the impact BPM can have on a company.

### 2.2.1 Definitions and explanations

BPM is a discipline within management that involves utilizing methods, techniques, and tools to facilitate the planning, implementation, supervision, and evaluation of day to day business operations [47].

BPM is a field that combines management and information technology. It focuses on merging management principles and practices with IT systems to enhance efficiency and effectiveness.[48]

Breaking down the term 'Business Process and Management'; A business process (BP) is a sequence of tasks or activities that a business undertakes to deliver a product or service to its customers. It starts with an objective, takes inputs, and applies resources (like people or technology), and then performs actions in a defined order to achieve the goal. BPs can be internal to an organization (like hiring staff, developing budgets, or creating a marketing plan) or external (like delivering products to customer locations). They can be simple or complex, depending on the nature of the task at hand. The goal of managing these processes (BPM) is to improve organizational efficiency, effectiveness, and adaptability to changes. [49]

Management is an approach to guaranteeing that an organization or business can attain its objectives by utilizing resources efficiently. It encompasses tasks such as planning organizing, leading and overseeing all facets of an organization, including personnel, finances, technology, and the environment. Additionally, management involves making decisions in response to both long term changes that impact the organization

from external and internal factors. By implementing management practices, companies can improve productivity and quality while successfully reaching strategic goals, for long term sustainability. [50]

BPM, according to another study, is described as an approach to managing and improving organizational operations. It involves activities such as, modeling, executing, and evaluating BPs while aiming for agility and operational excellence. To achieve this, BPM incorporates techniques, policies, metrics, management practices, and software tools to continuously monitor and enhance BPs. [51]

According to various sources, BPM can assist organizations in sustaining competitive advantage in the marketplace by embracing and implementing best practice management principles, strategies, and technologies continuously. BPM is a management practice that integrates BP knowledge and information technology to transform business efforts into integrated and measurable cross-functional activities that deliver strategic and operational competitive advantage.[52]

To make the concept of BPM more tangible, the following subsection presents the fundamental BPM life cycle that is widely used and accepted.

### **2.2.2 Fundamental Concepts and Steps of BPM**

BPM generally consists of the following stages (see also Figure 5, based on Dumas et al. [2]):

- Process identification and documentation: This step entails identifying the major processes in the organization, thoroughly documenting them, and mapping out how they interact with one another.
- Process analysis and redesign: At this step, the present processes are analyzed to identify areas for improvement, redesign them to reduce inefficiencies and expedite operations, and test the rebuilt processes.
- Process implementation is putting the new processes into action, which may need modifications to the organization's technology, structure, culture, and employees.
- Process monitoring and control: This step entails tracking the performance of the processes that have been established, finding any difficulties or bottlenecks, and taking remedial action as appropriate.
- Process optimization is constantly improving processes over time, using data from monitoring and control to optimize process design and execution.

Specialized software solutions are commonly used in BPM to automate and speed up the process of designing, executing and monitoring. These tools often utilize process modeling languages like BPMN to depict processes in a standardized and visible manner. The main goal of BPM is to create a company that's more efficient, effective and adaptable, to the ever-changing business environment and consumer needs.

### **2.2.3 BPM vs. BPR and their origins**

Business Process Reengineering (BPR) is a management strategy that shares similarities with BPM. BPR emphasizes the analysis and design of workflows and processes within an organization. Its main objective is to encourage organizations to reconsider their work practices leading to significant enhancements in customer service reduced

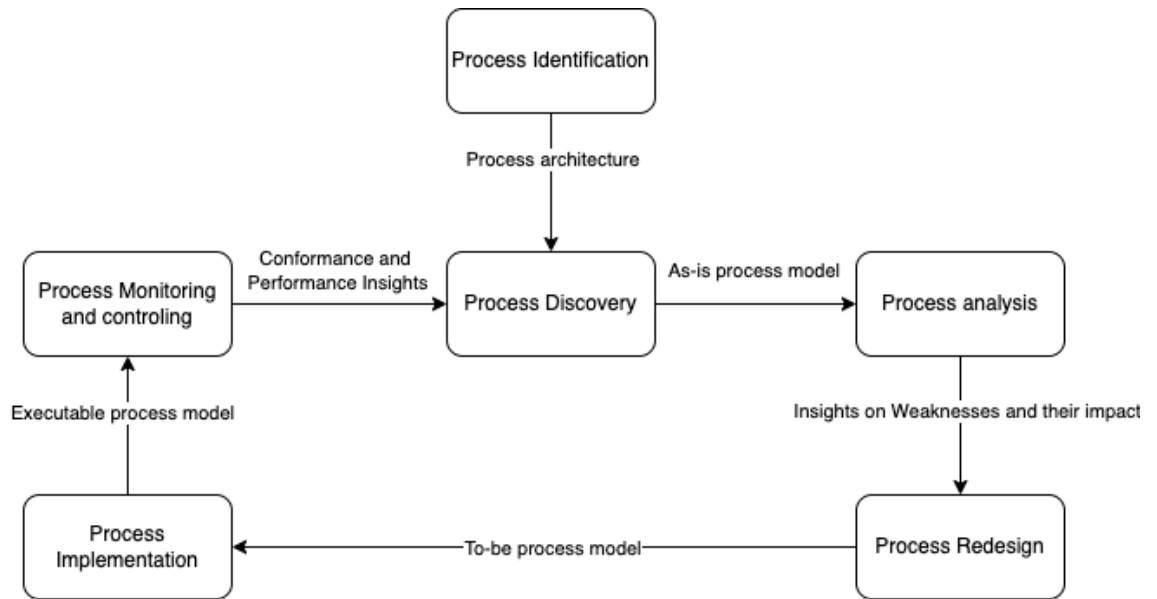


Fig. 5 BPM lifecycle; derived by Dumas et al. [2]

operational expenses and increased competitiveness, on a global scale. [53]

The original idea behind Business Process Reengineering (BPR) can be traced back to the manufacturing industry, where time and motion studies were used to enhance worker productivity. However, it was Michael Hammer, a professor at MIT, who brought this concept into the mainstream in the early 1990s. In his article called “Reengineering Work; Don’t Automate, Obliterate” [54] published in Harvard Business Review in 1990, Hammer proposed a radical shift in thinking by suggesting that instead of simply improving existing processes, businesses should entirely reevaluate and redesign them. He emphasized the need for enhancements in crucial areas like cost-effectiveness, quality standards, customer service levels and operational efficiency. This groundbreaking perspective gained traction when Hammer co-authored the book “Reengineering the Corporation”, with James Champy in 1993 [55]. They presented BPR as a methodology for the total transformation of companies, aligning processes to achieve strategic goals. Simultaneously, this movement saw the rise of business process redesign software tools and methodologies, which helped fuel the spread of BPR.[56] The BPR approach was widely adopted in the 1990s as many companies sought radical transformations to take advantage of emerging IT capabilities. However, BPR’s application was often associated with workforce reductions and had a mixed record of success. Its popularity dipped in the late 1990s but has experienced some revival as part of broader enterprise transformation initiatives.[57]

While there are some similarities, BPM didn’t directly evolve from BPR. They are both management strategies focusing on the improvement of organizational processes. Nonetheless, they approach this objective differently. The origin of BPM is difficult to pin to an exact point in time, as it is the result of developments in various fields over

many years. It incorporates the utilization of information technology to improve business operations to various other management techniques that have evolved alongside technological advancements. [58]

During the 1960s and 1970s, the advancement of BPM began with the creation of Management Information Systems (MIS). The main purpose of these systems was to assist organizations in their planning, control and decision-making processes by offering summary reports.[59]

During the 1980s and early 1990s, there was a shift in focus, towards making business operations more efficient. This was done through the implementation of Total Quality Management (TQM) and BPR. These approaches aimed to bring about improvements by thoroughly examining and evaluating various BPs.[60]

The concept of BPM started gaining traction in the 1990s and early 2000s, coinciding with the rise of internet based applications. The main objective was to enhance efficiency by integrating BPs across various systems within an organization. [61]

The primary goal of BPM is to achieve improvement. In contrast to BPR which aims for transformations, BPM focuses on making gradual adjustments and optimizations to BPs. This approach ensures that the organization can adapt smoothly without causing disruptions and enables an adaptable and responsive approach in fast-paced business environments. Nowadays, BPM is widely acknowledged as an element, in any organization's operations, serving as both a methodology and a vital technology. [51]

### **2.3 Business Transformation with Business Process Management**

This thesis bases its approach on handling a BT with the help of BPM. In more detail; the modeling part of BPM is taking a major role in this whole approach. In order to do so, the following chapter presents approaches on how to combine BT with BPM.

The process of radically changing the way a business runs in order to increase its performance, competitiveness, and overall success is referred to as business transformation (BT). Changes to the organization's structure, operations, technology, and culture may be required. It also refers to the process of making significant changes and improvements in an organization's operational and managerial processes to meet strategic goals and enhance customer focus. [4]

In contrast, BPM is the discipline of evaluating, creating, executing, and constantly improving the processes that comprise a firm. By improving the way work is done, BPM strives to improve efficiency, decrease expenses, raise quality, and increase satisfaction among clients. [2] BPM plays a role in enabling BT. It follows an approach to effectively and efficiently manage organizational processes ensuring their reliability even amidst changes in the business environment. [62] By leveraging BPM, companies can assess, enhance, regulate, and oversee their processes with the aim of improving the quality of their products and services. BPM offers an approach to analyzing and consistently refining essential business activities, like marketing, manufacturing, communication and other crucial aspects of an organization's operations. [63].

In real world scenarios; when a company undergoes changes, it often involves a thorough examination and redesign of its processes. This is where BPM comes into the picture. BPM provides a framework and tools to assess and enhance processes, helping

identify areas for improvement and implementing processes and technology necessary for successful BT. In terms, BPM plays a crucial role, in achieving the desired objectives of any transformation project. By adopting BPM concepts and practices, organizations can improve their performance by simplifying processes, automating routine tasks, eliminating inefficiencies and redundancies, and making their operations more streamlined. [4]

There are more papers that claim benefits on using BPM for a BT: One of them [64] argues that BPM plays a role in driving BT, especially in the context of DT. The authors emphasize the significance of BPM in bringing about impacts on costs, service quality and customer satisfaction. They stress that DT should not be seen through a technological lens but also from a process perspective. In this regard, they highlight that BP redesign is a component of BPM and is essential for achieving successful digital BTs. The authors suggest that effectively implementing BP redesign can help businesses attain performance and gain sustainable competitive advantage. [64]

Another publication [65] also highlights the benefits of using BPM for a DT. The authors elaborate that DT often involves process modifications and enhanced flow automation, which results in several benefits. In this circumstance, the adoption of BPM systems provides significant advantages owing to the speed of deployment and, most importantly, the ease and speed with which digital assistance can be adjusted to changes in BPs. [65]

Moreover, Perumal & Pandey [66] talk about process-based transformation. They discuss the importance of processes as the backbone of any business and suggests that changes in these processes can have significant impact on the overall performance of the organization.

Next to the above-mentioned publications, the [Related Work](#) section of this thesis showcases more publications that concentrate on BT or DT with the help of BPM.

## 2.4 Business Process Modeling

BP modeling is an essential aspect of BPM (see 2.2.2), allowing organizations to analyze and improve their operations [67]. BP modeling refers to a discipline that deals with the challenges associated with managing business operations and graphical models. [68].It is widely regarded as a stage in BPM, aiding in the effective communication of business operations to stakeholders. This encompasses aspects, such, as identifying and designing processes, automating them, analyzing their performance, and continually striving for improvement.[67].

Graphical models play a role in showcasing and overseeing BPs. They can be illustrated through forms such as flowcharts, swim lane diagrams or BPMN diagrams. These visual representations offer insights, into how businesses function and are managed. [69]

In this thesis, BPMN is used for the graphical modeling of BPs. A detailed explanation of the modeling language is given in the chapter on the process models, before presenting these BPMN models 5.1.

Another source that supports the definition of BP modeling is the book “Fundamentals of Business Process Management” by Dumas et al. [2]. In this book, the authors



discuss how BP modeling helps organizations in different ways. It enables them to identify, analyze, and redesign their BPs effectively. By creating explicit process models, organizations can subject their processes to forms of analysis and automate support systems accordingly. This flexibility allows them to adapt easily to changes in the organizations' environment. The authors emphasize that adopting a process oriented mindset and using representations, like process models, bring substantial advantages to organizations. These models help enhance efficiency, identify bottlenecks and inefficiencies, and streamline processes for smoother operations. [2]

In conclusion, BP modeling is a crucial aspect of BPM. BP modeling is also a methodology used in this paper and is elaborated on further in the [Research Design](#) chapter.

## 2.5 Software distribution models

For a time, traditional software distribution companies have played a vital role in the software industry. They used to be the providers of software products, for consumers, handling their acquisition and distribution [70]. However, the progress made in sales technology has encouraged manufacturers to consider selling through online platforms alongside their traditional retail channels [71]. The change in how products are distributed has resulted in the rise of a two pronged supply chain. Nowadays, companies offer their goods through both “brick and mortar stores” and online platforms. This shift is driven by advancements in sales technology, which have encouraged manufacturers from industries to explore selling their products directly to consumers via online platforms [72]. The change in distribution patterns has been influenced by the increasing desire for online sales and the convenience it provides to customers. Consequently, traditional software distribution companies have had to adjust their tactics and processes to stay competitive in the market. Nowadays, these companies are confronted with the task of incorporating sales channels into their operations to meet customer needs and remain relevant in the industry as SaaS gains popularity among consumers [73].

In the following sub-chapters, the two different software distribution models (traditional & SaaS) are presented and explained.

### 2.5.1 Traditional Software companies (SaaP)

Traditional software, often characterized as “boxed software”, “on-premise software”, or as often referred to in this thesis; “Software-as-a-product” (SaaP), was delivered in a physical format like a DVD, CD-ROM or even a floppy disk in its very early stages [74]. This software had to be installed directly onto a user's device (desktop, laptop, etc.) from these physical mediums. Such software was proprietary, often licensed under strict conditions, and had to be purchased outright, leading to high upfront costs for the user or company. Companies would manually roll out updates that the user would have to buy and install as newer versions. [74]

One publication [7] mentions product-based software business models (BM), it refers to them as one of the traditional and foundational models in the software industry. The Product-based BMs are those where the business is built on the delivery of a

physical copy of a software product on the premises of the customer, the production of embedded software, or via Original Equipment Manufacturer (OEM). This suggests that the primary source of value stems from the sale of software products. Typically this entails a one time purchase. The software can be utilized indefinitely. Historically this model has been widely and extensively used in the software industry. However there has been a trend, towards service based and open source models. [7]

Furthermore, another paper [75] mentions SaaP and refers to it as the traditional model of software distribution. This approach considers software applications as a product or asset for both the makers and users. Users mainly purchase the software and therefore become the owners of a licensed copy. This license grants them the right to install and utilize the software on a hardware setup for a defined number of users. Generally, there is no time limit on usage. Customers typically download the software from the vendors website, which has become the common method of purchasing software compared to the early days with physical discs. It is also solely the purchasing parties responsibility to install and set up the software. One challenge that arises is ensuring that the software can function effectively in unpredictable environments. [75] According to the authors, the SaaP (traditional) model has distinct advantages and disadvantages.

On the advantages side, once the customer pays a license fee, they can use the software indefinitely. Also, the software is designed to operate in diverse environments, making it versatile for various customer requirements. Furthermore, the customer maintains direct control over the software setup and configuration, offering tailored solutions for their specific organizational needs. [75]

However, there are some drawbacks to consider. First and foremost, the software faces challenges due, to the unpredictability of environments, operating systems and hardware configurations. Dealing with this complexity requires an amount of time and resources spent on adjusting and testing the product for different setups, rather than focusing on developing new features. It's also worth noting that the costs associated with installation, setup, and configuration often exceed the purchase cost of the software. Moreover, software producers may limit customer flexibility by opting for proprietary formats, which restricts their ability to migrate to other products. Furthermore, requesting development and enhancements may involve a lengthy process. Lastly, any serious malfunction has the potential to harm the reputation of the vendor. [75]

As already mentioned in this chapter, the trend of software and its distribution is shifting towards a service-based approach, offering software on-demand, hosted in the cloud and accessible via the Internets' web browsers on every PC or smart device. The following section introduces the concept of SaaS. [75]

### **2.5.2 Software-as-a-Service**

SaaS falls under the umbrella of cloud computing services, which allows users to access and utilize operational software applications via the internet. [76].

According to the U.S. National Institute of Standards and Technology (NIST) [6], Cloud computing is a model that enables accessible network access to a shared collection of flexible computing resources, such as networks, servers, storage, applications,

and services. These resources can be swiftly released, with minimal effort in management or interaction with service providers. [6]

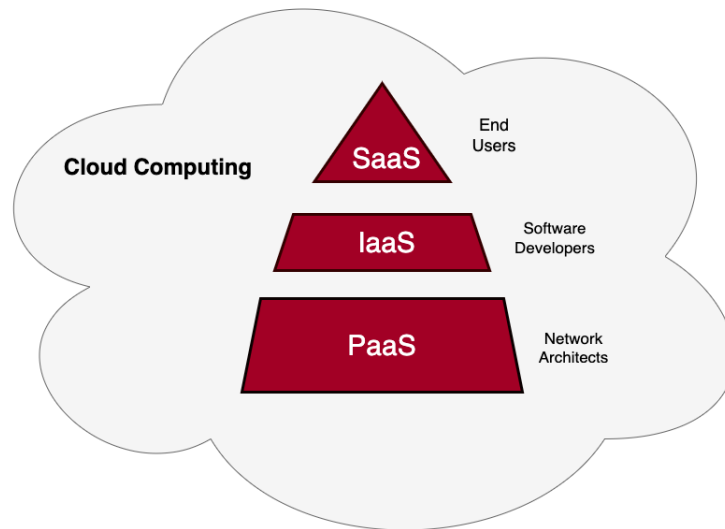
NIST standards define five essential characteristics of Cloud computing [6]:

- On-demand self-service: Consumers can access computing resources as needed at any given time without needing to interact with the service providers.
- Broad network access: The computing resources are delivered over a network and can be accessed by various client applications with different platforms.
- Resource pooling: The cloud service provider's resources are pooled together to serve multiple users.
- Rapid elasticity: This characteristic enables the resources to be rapidly and elastically provisioned according to demand. To the user, the resources available for provisioning often appear to be unlimited and can be purchased in any quantity at any time.
- Measured service: Cloud systems automatically control and optimize resources by leveraging a metering capability. This means that the usage of resources is measured, controlled, and reported, providing transparency for both the provider and the consumer of the service.

Cloud applications are provided by a third party host, which means users don't have to worry about installing, maintaining and updating software on their own servers [77]. This method enables individuals to conveniently use the software through a web browser, eliminating the necessity for setups or server administration. The pricing structure of SaaS generally revolves around a subscription model, where users are charged a recurring fee, for utilizing the software [78]. SaaS offers lower initial expenses, the ability to scale and adapt easily, automated updates and maintenance, and the convenience of accessing it from any internet connected device [79]. However, users have a level of control over the software, but they still rely on the provider for updates and security measures. Moreover, there seems to be a worry, about data security when utilizing SaaS since users must trust the provider with their information that is stored in a cloud environment [80].

There are well known instances of SaaS, such as cloud based productivity suites like Google Mail and Google Docs (now known as Google Workspace). Additionally, customer relationship management systems like Salesforce also fall into this category. These types of applications allow users to access them from any device, with an internet connection providing the convenience of work and seamless collaboration. [81]

An example for a successful BT towards SaaS is Adobe. The company is mostly famous for its image editing tool 'Photoshop'. In 2011, the company began transitioning to a SaaS business model. By 2018, its new product offering, Adobe Creative Cloud, accounted for over 70% of its recurring revenue. Within three years, the company shifted entirely to a subscription-based model. Adobe's successful transition inspired other companies like Microsoft, Autodesk, and Intuit to adopt similar strategies. [82] SaaS is one of the three elements of cloud computing, along with Infrastructure as a Service (IaaS) and Platform as a Service (PaaS). [6] (see Figure 6. IaaS offers users access to virtualized assets, like computing power, storage and networking infrastructure. [83]. For example, Amazon Web Services and Microsoft Azure offer IaaS solutions



**Fig. 6** Cloud Computing concepts

where users can provision virtual machines, storage, and databases on demand. On the other side, PaaS provides a comprehensive development and deployment environment that facilitates the creation and administration of applications [84]. PaaS equips developers with the tools and resources they need, including programming languages, libraries, and frameworks. This empowers them to create and launch applications without the need to be concerned about the details of the underlying infrastructure [85]. Examples of PaaS providers are Google App Engine, Microsoft Windows Azure or Force.com [81][84].

This chapter focused on the two main software distribution models: traditional software companies (SaaS) and SaaS companies. Traditionally, software companies delivered physical or, later on, downloadable copies of software products, which users had to install on their own infrastructure (servers, devices, etc.). This model, characterized by one-time purchases and proprietary licenses, required manual updates and often resulted in high upfront costs for users. While it offered indefinite usage, adapting to diverse environments posed challenges. On the other hand, the advantages included customer control over software configuration. However, drawbacks included time-consuming adjustments and limited flexibility due to proprietary formats.

As technology advanced, the trend shifted towards SaaS, a cloud-based service offering software access through the internet. Users no longer needed to install or maintain software on their devices, as SaaS applications were provided by third-party hosts. Subscribed under a recurring fee, users benefited from lower initial costs, scalability, and easy updates. Despite the convenience, concerns arose regarding data security and reliance on the provider for updates.

In the broader context of cloud computing, SaaS is one of three elements, along with Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS). IaaS provides virtualized assets, while PaaS offers a comprehensive development and deployment environment for creating applications. This chapter highlights the evolving landscape of software distribution, with traditional software companies adapting to incorporate modern BPs and strategies to stay relevant in the era of SaaS. It emphasizes the advantages and challenges of each distribution model, paving the way for a deeper understanding of the role SaaS plays in modern software consumption and the shift towards cloud-based services.

### 3 Related Work

This paper’s purpose is to detect PPs and guidelines for successfully transforming a software firms’ BPs with BP modeling. There are several other publications that are giving answers to similar questions. In the following, these related papers are presented. While searching for the relevant keywords “Business Transformation” in combination with “Business Process Management”, it became clear that BT was used interchangeably with “Digital Transformation” or only focused on a DT as a part of BT. Therefore, also publications writing about DT in the context of BPM, were used for this related work section. As already elaborated on in prior chapters 2.1 or in Figure 4.

Stjepic, Ivancic, and Vugec’s paper “Mastering digital transformation through business process management: Investigating alignments, goals, orchestration, and roles” [86] provides a literature analysis on the relationship between DT and BPM. They provide a theoretical framework and analyze the content of relevant publications. The findings suggest that more study on strategic alignment is required, with an emphasis on BPM and DT orchestration. The research stresses the significance of customer focus, process flexibility, and understanding organizational roles. The suggested research framework serves as the foundation for future studies in digital BPM.

Abayomi Baiyere, Hannu Salmela, and Tommi Tapanainen’s article “Digital transformation and the new logics of business process management” [87] explores the changes and problems experienced by a corporation (referred to as Lead Tech) along its DT path. The authors believe that standard BPM logics are insufficient in the context of DT and propose three new logics: light touch processes, infrastructure flexibility, and attentive actors. During its DT, LeadTech implemented new logics for BPM with a strong focus on flexibility, employee empowerment, and agile decision-making. These new logics played a crucial role in the company’s successful journey towards DT. By prioritizing flexibility, LeadTech ensured that its processes could adapt and evolve in response to changing market dynamics and customer demands. This approach empowered employees by giving them the autonomy and tools necessary to make informed decisions and drive innovation within their respective roles. The emphasis on agile decision-making enabled LeadTech to quickly respond to emerging opportunities and challenges, fostering a culture of agility and responsiveness across the organization. Overall, these new logics for BPM laid the foundation for LeadTech’s DT journey, enabling the company to stay competitive in an ever-evolving digital landscape while fostering a dynamic and empowered workforce.

Javaid Butt’s article “A Conceptual Framework to Support DT in Manufacturing Using an Integrated BPM Approach” [88] offers the integrated business process management (IBPM) framework for manufacturing businesses undergoing Industry 4.0 transformation. In order to address the absence of defined protocols, the framework combines previously disregarded issues such as skills analysis, risk management, and change management. IBPM, in contrast to standard BPM, has a human-centric approach, stressing strategy alignment, governance, techniques, technology, people,

and culture. It facilitates effective administration and the creation of an agile culture via the use of digital technology. The IBPM framework, with its full roadmap, corresponds with the growing industrial industry, absorbing disruptors such as digitization and big data analytics. It may be tailored to meet the demands of unique businesses, supporting successful DT. To minimize losses and enhance rewards, careful management is required. The IBPM framework, which is based on BPM concepts, provides industrial businesses with a familiar and effective instrument for DT. The next stage is to put the structure in place to promote DT in a manufacturing firm.

“A Transformation-Based Approach to Business Process Management in the Cloud” [89] is a research paper published in 2013 by Evert Ferdinand Duipmans, Luís Ferreira Pires, and Luiz Olavo Bonino da Silva Santos. The paper introduces a transformation-based approach to BPM that enables companies to control which parts of their BPs should be allocated to their own premises and to the cloud. This approach helps companies avoid unwanted exposure of confidential data and take advantage of the high performance of cloud environments.

Marcus Fischer, Florian Imgrund, Christian Janiesch, and Axel Winkelmann released “Strategy archetypes for digital transformation: Defining meta objectives using business process management” in 2020 [90]. The article analyzes how DT has led to improvements in corporate BPM, which have been driven by enhanced operational efficiency and manageability. The authors suggest a collection of strategy archetypes for defining meta-goals for DT using BPM. According to the report, DT has resulted in improvements in corporate BPM, which have been driven by enhanced operational efficiency and manageability. The authors propose a collection of strategy templates for defining meta-objectives for DT through BPM. The report stresses the necessity of having a clear plan in place when approaching DT, especially for small and medium-sized businesses.

The research paper “The Digital Future Has Many Names: How Business Process Management Drives the Digital Transformation” [91] by Matthias Lederer, Juliane Knapp, and Peter Schott discusses how process orientation of companies in combination with intelligent IT systems often forms the basis for many modern business models. The paper emphasizes the importance of BPM in driving digital transformation and highlights the need for companies to have a clear plan on how to approach it, particularly for small- and medium-sized enterprises. The article emphasizes the significance of BPM in fostering DT while also analyzing and categorizing current BPM trends in a qualitative research. The study outlines two BPM tendencies that still adhere to the traditional paradigm: technology-driven and human-driven.

The work by Daniel Paschek, Caius Tudor Luminosu, and Anca Draghici [92] investigates the application of machine learning and artificial intelligence (AI) in process automation and optimization, as well as the effects of DT on BPM. Through interviews and study of digital enterprises, the authors want to examine how DT affects BPM and determine the areas where machine learning and AI have applications. The

definitions of BPM, artificial intelligence, machine learning, and DT are provided in the article. In the context of Industry 4.0, it introduces the ideas of cloud computing and the internet of things. In light of shifting circumstances and client demands, the book also emphasizes the significance of automation and process management. It examines the function of deep learning and neural networks and makes a distinction between strong and weak AI. With a focus on the importance of big data and technological breakthroughs, the scientific standing of AI and machine learning is assessed. In order to obtain information and insights, the study technique includes a survey, interviews with digital organizations, and watching the process management teams work. According to the survey's findings, digitization has a significant influence on businesses, necessitating process automation and optimization. For process improvement and steering, the authors suggest using machine learning and AI.

The paper "Enabling Front-Office Transformation and Customer Experience through Business Process Engineering" [93] by Jorge L. Sanz provides insights into how Business Process Engineering (BPE) can be used to transform the front-office and improve customer experience. The paper's primary purpose is to emphasize the relevance of procedure in customer experience as a fundamental goal in front-office transformation. The article proposes BPE, a new multidisciplinary subject centered on servicing consumers and enhancing their experiences. The study also discusses the fundamental differences between BPE and regular BPM and says that process is an important topic that should be discussed further later in the paper. The importance of processes in customer experience as a key goal in front-office transformation, the multidisciplinary study of process that integrates individuals, information, and technology, and the comparison of BPE with traditional BPM are some key concepts of BPE discussed in L. Sanz's paper. By developing customer-centric BPs, BPE is a new field that focuses on servicing customers and enhancing their experiences.

The paper "Supply Chain Transformation Based on Business Process Management" by Wang et al. [94] discusses the methodology of supply chain transformation based on BPM. The methodology progresses along with the life cycle of BPM, from BP modeling to process execution and monitoring. The paper also highlights the importance of information technology in supply chain transformation and suggests that the integration of information technology and BPM can lead to significant improvements in supply chain performance.

The study of Pihir [95] compares two concepts for improving company processes: BPM and DT. It examines the history of BPM via its many waves and presents DT as the fourth wave of BPM. Based on bibliographic research and a review of the literature, the study examines the popularity and research trends of both BPM and DT. The findings suggest that DT is a relatively new paradigm that has gained traction in recent years, whereas BPM has attained maturity. The study finishes by portraying DT as the fourth wave of BPM, highlighting its emphasis on customer-centricity and the use of cutting-edge technology to drive organizational transformation and improve corporate performance.

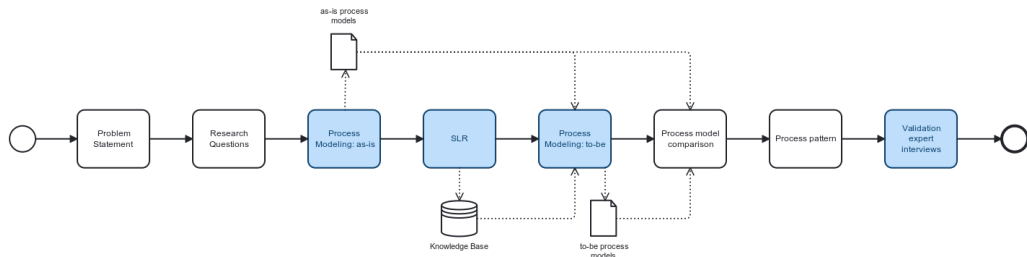


Amy Van Looy’s research paper “A quantitative and qualitative study of the link between business process management and digital innovation” [96] analyzes the relationship between BPM and digital innovation. The study aims to understand the strength and nature of this relationship, and how various contextual factors affect it. The research explored these relations from the perspective of 403 managers across four continents. This information helped in developing an extended Technology, Organization, and Environment (TOE) framework and a readiness matrix to help organizations decide on their strategic approach to BP changes. The authors suggest further research to derive practical guidelines on how to apply this extended TOE framework and the readiness matrix.

In conclusion, the reviewed literature on the relationship between BT/DT and BPM offers valuable insights from diverse perspectives. These studies highlight the significance of strategic alignment, customer focus, and process flexibility in driving successful BT/DT journeys. New BPM logics, emphasizing adaptability, employee empowerment, and agile decision-making, have proven instrumental in achieving DT goals. Moreover, the integration of information technology with BPM has led to improved performance in supply chain transformations. As BT/DT continues to shape modern business landscapes, the research underscores the need for organizations, regardless of size or industry, to embrace customer-centricity and cutting-edge technologies to drive innovation and enhance corporate performance. These findings collectively contribute to a deeper understanding of the interplay between BT/DT and BPM and provide valuable guidance for organizations embarking on their digital transformation endeavors.

## 4 Research Design

In this thesis, the Design Science Methodology (DSM) is used as a framework to guide problem-solving and knowledge acquisition. DSM integrates methods, such as conducting a SLR, creating BP models at different stages of the research process, and doing Expert interviews for validation. Each methodologies' role is explained in detail in subsequent sections to highlight how they contribute to improving the analytical rigor of the research and understanding complex details. This combination of methodologies emphasizes an evidence based approach, in line, with modern scientific inquiry principles. The general scientific procedure is shown in Figure 7. Different Methodologies used in this paper are marked blue in the figure. Furthermore, everything is operated according to the structure of DSM, which will be presented in the following subsection.



**Fig. 7** Scientific procedure of this thesis based on DSM

### 4.1 Design Science

Design Science in Information Systems and Software Engineering by scientist Roel Wieringa [1] is a methodology focused on the design and empirical investigation of artifacts in context. There are two primary problem-solving cycles – the design cycle and the empirical cycle.

1. Design Cycle: In this cycle, the researcher focuses on designing artifacts intended to help stakeholders. Artifacts might include methods, techniques, algorithms, or notations used in software and information systems. However, the results are fallible, as the artifact may not fully meet the goals of stakeholders. Therefore, artifact designs must be validated in terms of stakeholder goals, problem structures, and artifact requirements.

2. Empirical Cycle: This cycle is devoted to producing answers to knowledge questions about an artifact in its context. The researcher empirically investigates the performance of the artifact in a real setting. Similar to the design cycle, the results may have limited validity – the answers to knowledge questions might be incorrect or incomplete. Therefore, great emphasis is placed on ensuring the validity of inferences made in this cycle.

The book emphasizes treating design and empirical research as problem-solving activities. It also puts significant focus on the validation of designs and the importance of

validating inferences. This approach iterates between design problems and knowledge questions, creating a cyclical, iterative process that serves as the pulse of Design Science in Information Systems and Software Engineering. In case of this thesis, the Design Cycle is chosen, since a real life problem is meant to be solved. The Design Problem therefore is to improve the BT from SaaP companies towards SaaS companies, while focusing on specific BPs and applying BPMN, a BP Modeling technique, to detect PPs that can help guide software companies in their BT attempts.

According to the paper, the design cycle consists of three key steps:

1. **Problem Investigation:** This step involves thoroughly investigating the issue at hand. The researcher needs to identify the phenomena that need to be improved or problems that require a solution. This is achieved by understanding the environmental context and interactions of the situation, collaborating with stakeholders, and defining specific problem attributes. To understand the environmental context, other methodologies are applied. In this case, the [Systematic Literature Review](#) is utilized to gain theoretical knowledge of this specific case of BT.

2. **Treatment Design:** The objective of this step is to develop one or more solutions, called 'treatments', for the issue identified in the initial step. It includes specifying requirements for designing solutions to address the identified problems effectively. The treatments are typically in the form of artifacts, such as systems, models, methods, or tools, designed to interact with the problem context for improvement. In this paper, the treatment evolves around detecting PPs when comparing the as-is (SaaP) with the to-be models (SaaS). To be able to have common ground of comparison, BPMN is used as an artifact to foster the comparison and the following development of the PPs. BPMN is per se one of many tools of [Business Process Modeling](#) which is also a Methodology used for the purpose of the Treatment Design, presented in one of the following subchapters.

3. **Treatment Validation:** In this step, the effectiveness of the designed treatment is validated to ensure it can indeed solve the identified problem. Here, researchers use various techniques and methods to demonstrate that the treatment addresses the problem and meets the previously specified requirements. In this case, [Expert Interviews](#) help to validate the PPs that were developed in the Treatment Design phase. The PPs are shown to the experts, and they confirm or deny if the PP is necessary on a scale from one to seven. Answers are gathered and then analyzed to figure out the applicability for each PP.

These steps are typically iterated several times until a satisfactory solution is reached. The process might involve backtracking and revising earlier steps based on the insights gained from later stages. The designed solution is refined until it's adequately addressing the problem and fulfilling the desired goals. For the purpose of this paper, one full completion of the design cycle serves sufficient.

At the end of this cycle, the solution is validated, and the outcome should be a functional set of guidelines that can be effectively implemented in the identified context to address the problem.

## 4.2 Business Process Modeling as methodology

BP Modeling is a powerful methodology [23] widely used in the field of BPM to analyze, design, optimize, and communicate BPs. In this research, BP Modeling serves as a fundamental technique to capture and represent the current as-is processes of Flexopus' traditional software distribution model and design the desired to-be processes for the SaaS model. BP Modeling is part of BPM and therefore follows similar steps as already presented in the BPM chapter 2.2.2. Therefore, the focus in the following text is on how to apply BP Modeling to the actual case-study.

**Step-by-Step Application of BP Modeling:**

**Problem Understanding and Scope Definition:** The first step in applying BP Modeling is to clearly understand the research problem and define the scope of the process analysis. In this case, the objective is to transform Flexopus' traditional CLC (Sales, Onboarding, Customer Service, Invoicing, Termination) BP model to an efficient SaaS model. The scope includes analyzing all relevant BPs (CLC).

**Process Identification and Documentation:**

The next step is to identify and document the as-is processes. This involves engaging, for example through interviews, with stakeholders, such as managers, and employees, to gather information on the existing processes. The identified processes are then documented using appropriate modeling techniques. In this case, BPMN is chosen as the modeling technique. BPMN is a standardized notation that provides a clear and standardized way to represent BPs with graphical elements.

**As-Is Process Analysis:**

Once the processes are documented, an analysis is conducted to understand the strengths, weaknesses, bottlenecks, and inefficiencies of the current processes. This analysis helps identify areas for improvement and serves as a baseline for comparison with the to-be processes.

**To-Be Process Design:**

Based on the findings from a systematic literature review, the to-be processes for the SaaS model are designed. The to-be processes aim to incorporate best practices, industry standards, and innovative approaches to optimize the software distribution process. The designed to-be processes are again documented using BPMN.

**Comparing Academic Sense of BP Modeling with Practical Application:**

In the academic sense, BP Modeling is often described as a systematic approach to represent BPs using standardized notations like BPMN. It focuses on improving process efficiency, effectiveness, and alignment with organizational goals. In practical application, BPM serves as a valuable tool to map out complex processes, facilitate communication between stakeholders, and identify opportunities for process optimization.

In this research, it is planned to use BP Modeling in a practical and systematic manner. Flexopus' as-is processes are modeled, analyzed, and then the to-be processes

modeled for the SaaS distribution model. The BPMN diagrams serve as a visual representation of the processes, aiding in the comparison, analysis, and communication of the process changes throughout the transformation journey.

By utilizing BP Modeling, Software companies are provided with a clear and comprehensive PPs for their BT. The modeling approach ensures that the changes are well-documented, easily understood by stakeholders, and aligned with industry best practices. Furthermore, the modeled artifacts also contribute to the theoretical understanding of SaaS transformations in software companies and offer general insights and guidelines for other organizations undergoing similar changes.

### 4.3 Systematic Literature Review

To enhance the overview and understanding of the topic of SaaS Software distribution, a SLR is conducted. Kitchenham et al. [24] emphasizes the importance of using a rigorous and transparent approach to identifying, evaluating and summarizing all available evidence for a particular research question or topic. The document also highlights the need for clear inclusion and exclusion criteria, a comprehensive search strategy and transparent reporting of results. This paper is widely cited and has influenced the development of SLR methodology in various fields. Another paper about the methodology, published by Sauer & Seuring [25] identifies the six relevant steps of an SLR:

1. Defining the research question: Define the scope of the review and identify concise research questions to be addressed in the review.
2. Determining the required characteristics of primary studies: The aspect of this step is to define inclusion (IC) and exclusion criteria (EC) for the primary studies. To retain the review's integrity, the authors emphasize the need for removing low-quality material. Choosing publications from respected journals, such as those listed on Web of Science or Scopus, is one approach to ensure this.
3. retrieving a sample of potentially relevant literature: The third step of a SLR is to retrieve relevant material by making two important judgments. The initial option comprises picking appropriate databases, such as Web of Science, Scopus or Google Scholar, while taking into account the benefits of quality assurance procedures. The second option is defining search keywords and creating a search string, which might contain synonyms and keyword groupings, in order to acquire relevant material from diverse domains and provide thorough coverage.
4. selecting the pertinent literature: Step 4 of an SLR involves selecting relevant literature by applying inclusion and exclusion criteria to the titles, abstracts, and keywords of articles, followed in a second round by a review of the full text.
5. synthesizing the literature: The fifth phase of a SLR is to synthesize the literature using key steps. The first step is to choose a data extraction tool, such as specialist software or cloud storage, to properly organize and analyze the retrieved data. The data is then analyzed, with an emphasis on coding against predetermined constructions and ensuring clear definitions and broad coverage. Finally, statistical analysis is carried out, which is adapted to the selected SLR technique and is in line with the study's aims and the features of the literature sample.

6. reporting the results: Finally, step 6 includes the textual representation of the synthesized findings.

#### 4.3.1 SLR Research Questions

To find out more about the challenges to master the BT from SaaP to SaaS it is important to acquire already existing knowledge about this topic from published research also in regard to SRQ1 in the [Research Questions](#) section, where it is the goal to find key business challenges to achieve a successful software distribution model BT. To acquire an overview of SaaS, advantages and disadvantages of SaaS are listed. So the question 'What are the advantages and disadvantages of SaaS?' is answered through the SLR. After that, the rest of the SLR concentrates on the best practices of SaaS in order to help answer SRQ1. First in general and then specifically regarding BPs. Therefore the two remaining questions for the SLR are: 'What are best practices and guidelines for transforming a SaaP company towards a SaaS company?' and 'What are best practices and guidelines for transforming a SaaP companies' BPs towards a SaaS company?'. A question that is also helpful to help answer and used is 'What are the best practices of SaaS companies/SaaS BPs'?

#### 4.3.2 Inclusion and exclusion criteria

To answer all the questions with fitting existing publications, the following operational inclusion and exclusion criteria have been developed.

- IC1: Field of research paper evolves around Cloud Computing, Business Process Management or Business Transformation.
- IC2: Some form of transformation is mentioned in the abstract (Business, digital).
- IC3: Software-as-a-Service or SaaS or On-demand is mentioned in the Abstract.

The SLR disregards publications that fulfill the following exclusion criteria:

- EC1: Papers are written in other languages than English or German.
- EC2: Papers are published before 2010. Before 2010 papers appear to be outdated for the topic of SaaS.
- EC3: Publication has not been peer-reviewed (If the paper has been published in a Journal, it is to assume that it is peer-reviewed).
- EC4: Papers are behind a paywall and can not be openly accessed.

Furthermore, some quality criteria (QC) is also implemented

- QC1: Papers published in IEEE Xplore, Scopus, Science Direct, or Google Scholar.

### 4.4 Expert Interviews

Semi-structured expert interviews [26] are a valuable qualitative research method employed in this study to gain in-depth insights into the practical aspects of transforming the BPs of SaaP to a SaaS distribution model. These interviews provide a platform for engaging with industry experts who possess valuable knowledge and experiences in BT and SaaS adoption within the software industry.

#### Selection of Expert Participants:

To ensure the inclusion of relevant expertise and diverse perspectives, a purposive sampling strategy is adopted to select expert participants. Criteria for selecting experts include their roles in software companies that have undergone SaaS transformation, experience in leading or participating in similar BTs, or knowledge of industry best practices. The participants include executives, managers, business analysts, business consultants or professionals directly involved in the transformation process. Sources for suitable experts include contacts suggested from the supervisor of Flexopus, who has industry contacts to other companies that fulfill the criteria. Additionally, LinkedIn is used to find suitable English or German-speaking candidates. All potential participants are contacted via Email or LinkedIn (depending on if E-mail address available) and asked to participate in a 30-minute interview, if they have substantial knowledge about BT in the software and especially SaaS sector. If the respondent is interested, a video call date is agreed up on and following the interview is held.

#### Semi-Structured Interview Guide:

The development of a semi-structured interview guide is a critical step in conducting effective expert interviews [26]. The interview guide is separated in three parts. The first part explains the concepts of SaaS and SaaP and gives a general setting of how the different traditional (SaaP) BPs could look like in a fictional software company. Then the expert talks about their own experience with SaaS and SaaP and also gives a short presentation of their company.

In the second part, the experts are asked about the PPs. The questions (PPs) are based on the findings of the Process comparisons 8 of as-is and to-be process models, where the latter are again guided through the findings and best practices of the SLR. The expert interviews will serve as the validation of the detected PPs.

Additionally, in the third part of the interview, some general questions are asked, where the experts could talk about what they would still add as PPs, or what the future development of the SaaS industry could look like. The used question catalog can be found in the appendix B.

#### Flexibility and Adaptability:

One of the key features of semi-structured interviews is their flexibility and adaptability. While the interview guide provides a structured framework for the conversation, the interviewer has the freedom to probe further into specific areas or ask follow-up questions based on the expert's responses. This flexibility allows for a deeper exploration of relevant topics and ensures that no valuable insights are overlooked.

#### Data Collection and Analysis:

Data collection involves conducting one-on-one interviews with the selected expert participants. The interviews are audio-recorded with the consent of the participants to ensure accurate capturing of responses. Additionally, detailed notes are taken during the interviews to supplement the audio recordings.

The collected interview data is then transcribed and analyzed using thematic analysis. Themes and patterns emerging from the interviews are identified, coded, and categorized to uncover commonalities, differences, and key insights related to the SaaS transformation process.

#### Ethical Considerations:

This research adheres to ethical guidelines for conducting interviews with human participants. Informed consent is obtained from all expert participants, and their identities are kept confidential. Any sensitive information shared during the interviews is handled with utmost care and anonymized in the reporting of findings.

Overall, semi-structured expert interviews provide rich and valuable data to validate the findings of the SLR and BP Modeling efforts, enabling a comprehensive exploration of the practical aspects of BT and contributing to the development of robust and practical PP.

## 4.5 Validity Threats

In any research project, there are risks, to the accuracy and reliability of the findings and conclusions. This section addresses the four areas of research where these risks may arise based on [97].

**Construct Validity:** Construct validity refers to how appropriately variables are defined and measured in this research. In this study, there is a possibility of a risk to Construct Validity when it comes to BP Modeling. While the goal is to capture the essence of Flexopus current processes and design processes based on best practices, there is a chance of misinterpretation or oversimplification. To address this risk, it is worked closely with domain experts from Flexopus to ensure that the process models truly reflect the real world context and complexities of the software distribution business.

**Internal Validity:** Internal Validity focuses on understanding relationships between variables in the research. In this case, internal reliability may be at risk during the analysis and synthesis stage of the SLR. Since this review involves combining findings from sources, there is a possibility of bias in how studies were selected and interpreted. To enhance reliability, it is strictly adhered to predetermined criteria, for including or excluding studies. Maintain transparency throughout the selection process.

**External validity:** It refers to the extent to which the research findings can be applied beyond the context of the study. Since this research focuses on practical site on a German based software company called Flexopus, its generalizability may be limited to organizations, within the industry. To address this limitation, the background, and characteristics of Flexopus are thoroughly documented, while providing descriptions of research methods. This enables comparisons and potential applications in similar settings.



Reliability on the hand pertains to the consistency and repeatability of research findings. In interviews, specifically, there is a risk of interviewer bias or inconsistent interpretations of responses. To ensure reliability in the study, an interview protocol is followed. Utilizing standardized questions for data collection.

By acknowledging and addressing these threats to validity, the aim is to strengthen the robustness and credibility of the research outcomes. Throughout the research process, methodologies and reporting practices are employed, that minimize biases and enhance trustworthiness in the findings.

## 5 As-is Processes

In this chapter the current situation of the Object of study (Flexopus) is investigated closer. Through Process Elicitation Interviews it is possible to create representative BP models in BPMN, showcasing the as-is status. Furthermore, before the models are shown, it is explained what BPMN is in the first place and also Flexopus and its structure is presented. It is to mention that other BP Modeling tools could be used in this research. This paper is not intended to classify one language superior to the other. Modeling languages like Event-driven process chain, UML, or Value Stream Mapping could also be valuable modeling languages for this thesis. BPMN is used in this thesis because it is widely used in the industry.

### 5.1 Business Process Modeling and Notation (BPMN)

Business Process Model and Notation (BPMN) is a used notation that helps model and document BPs effectively. It offers a representation making it simpler for organizations to grasp, analyze and enhance their workflows. In this chapter BPMN is explored and delved into its symbols.

#### What does BPMN entail?

BPMN serves as a modeling language that enables organizations to represent their BPs in an understandable manner. It acts as a bridge between business stakeholders and technical teams facilitating collaboration. BPMN diagrams find use in process analysis, documentation and automation. This chapter relies on the publication of Dumas et al. where BPMN is explained in more detail [2].

#### Symbols of BPMN

BPMN employs symbols and notations to depict different aspects of a BP. These symbols are categorized into four groups; Flow Objects, Connecting Objects, Swimlanes and Artifacts. some of the symbols within each category are explained. In Figure the most important elements are shown. For further knowledge about the modelling language it is recommended to thoroughly study the mentioned paper [2]

##### 1. Flow Objects

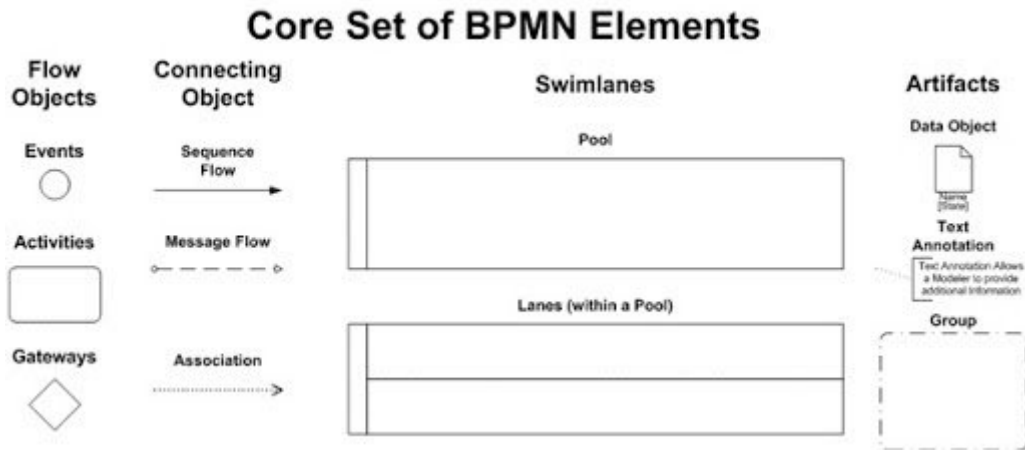
Flow Objects serve as the building blocks of BPMN diagrams. They represent the activities, events and gateways involved in a process.

##### Activities:

Task: This rectangular symbol represents an activity or task performed within the process. There are types of tasks that can be further classified, such as User Tasks, Service Tasks and Script Tasks depending on the nature of the work.

Sub process: A sub process is used to represent a subprocess, within the process. It is shown as a rectangle. May contain its own set of BPMN symbols to provide more details about the subprocess.

##### Events:



**Fig. 8** Core BPMN elements

**Start Event:** The circle with a border represents the starting point of a process. It indicates where a process begins and can have types like Message Start Event or Timer Start Event depending on how it's triggered.

**Intermediate Event:** These events occur during the progress of a process. Are marked by a border. Intermediate events can include Timer Events, Signal Events or Error Events among others.

**End Event:** The circle with a border indicates the endpoint of a process or a specific path within it. End events show where a process or subprocess concludes and can be classified into types, such as Message End Event or Terminate End Event.

**Gateways:**

When it comes to process representation symbols are used to depict decision points. The flow of activities. The diamond shaped symbol with an X inside, is used for the Gateway (XOR) which indicates that only one, out of outgoing paths can be chosen based on specific conditions.

Similarly the Inclusive Gateway also represents decision points but allows for paths to be taken depending on conditions.

Another type is the Parallel Gateway, which is denoted by a plus sign inside a diamond. This signifies that multiple paths can be executed simultaneously allowing for execution of activities.

## 2. Connecting Objects

To illustrate the sequence and flow of activities within a process connecting objects are used. One such object is the Sequence Flow, which connects flow objects and determines their order of execution. It uses an arrow to indicate the direction of the process flow.

Another connecting object is the Message Flow, represented by a dashed arrow. This

depicts message exchange between participants in a process. Is commonly used in collaboration diagrams.

### 3. Swimlanes

Swimlanes are employed to organize and categorize activities as assigned responsibilities within a process. They come in two types:

The first type is called a Pool, which represents a participant or external entity like a department organization or system.

The second type is called Lanes which are subdivisions within a pool that group related activities together. Lanes are typically aligned with roles, departments or functions.

### 4. Additional Components

Artifacts serve as elements that offer information and context to BPMN diagrams.

Data Object: A square shape, with a folded corner symbolizes data or information utilized or generated by activities in the process.

Data Store: A place where the process can read or write data, e.g., a database or a filing cabinet. It persists beyond the lifetime of the process.

Group: A rounded rectangle with a label is employed to group related activities. It aids in organizing processes.

To sum up, BPMN is a tool for modeling and documenting BP featuring a range of symbols that enable precise representation. Understanding these symbols is vital for communicating and analyzing processes within an organization. By becoming proficient in BPMN businesses can enhance process efficiency, transparency and collaboration ultimately leading to operations and decision making. Understanding the concept of BPMN is also helpful for following along the next chapters of this thesis.

Having introduced BPMN in this thesis, it is still necessary to figure out how to depict a BT from Saap to SaaS, which simultaneously serves as *SRQ2* of this thesis: *How is a BT from SaaP to SaaS depicted with BPMN?*

Combining BPMN with the already presented BPM methodology 2.2.2 and the research design cycle 4 by Wieringa [1] the result is a structured approach into capturing the aspired BT:

Capturing current processes (as-is): The initial step involves utilizing BPMN to map out the existing BPs at Flexopus, a German-based software company. This step is crucial as it lays the foundation for understanding the current state and identifying areas that require change for the transition to SaaS.

Developing future processes (to-be): Subsequently, BPMN is employed to design the 'to-be' process models. These models represent the envisioned state of BPs post-transition to the SaaS model. They are developed based on best practices identified through the SLR.

Comparative Analysis and PP Identification: A critical component of the answer lies in comparing the 'as-is' and 'to-be' BPMN models. This comparison highlights the differences, changes, and shifts required in transitioning to a SaaS model. From this comparative analysis, specific PPs emerge that guide the transformation This step is

accompanied with visual comparisons where process sequences that fulfill the same purpose in both process models of each domain (CLC) are colored in the same color to be able to quickly see the changes in the transition and how flows are modeled in the desired outcome process.

Validation of PPs: The derived PPs are then validated through expert insights and practical observations. This validation ensures that the BPMN models and the identified patterns accurately represent effective strategies for transitioning to SaaS. Next to that, as a visual aid, the PPs are also marked in the to-be process models in color, in order for a quick identification of the patterns. Each pattern therefore has its own color that is used throughout all five to-be models.

In summary, the answer to SRQ2 demonstrates how BPMN effectively captures and illustrates the BT journey from SaaP to SaaS. By mapping both current and future states of BPs, BPMN serves as a pivotal tool in planning, visualizing, and implementing the transition to a SaaS business model, supported by theoretical best practices and validated through practical insights.

## 5.2 Flexopus Introduction

In today's business environment the idea of shared work spaces has become increasingly popular. Among the players in this field is Flexopus, a B2B platform that helps companies manage and optimize their work areas. Based in Stuttgart, Germany, Flexopus is a small enterprise with 20 employees. [12]

Streamlined Workspace Management: Flexopus takes an approach to workspace management by focusing on three components:

1. Desks: The platform simplifies desk booking, allowing organizations to efficiently allocate workspace resources based on real time demand.
2. Meeting Rooms: Flexopus goes beyond desks. Also offers scheduling for meeting rooms enhancing collaboration within the workspace.
3. Parking Spaces: Additionally Flexopus manages parking spaces through its platform to ensure a rounded approach to utilizing workspace resources.

Pricing Structure: Flexopus has adopted a pricing model where companies are charged per object than per user. Each object refers to either a desk, meeting room or parking space. Payments are typically made on a yearly basis as part of a contract and payment plan.

Accessible via Cloud Technology: Flexopus leverages the power of cloud technology allowing users to access the platform through web browsers and mobile apps long as they have an internet connection. This architecture hosted on the cloud ensures that the platform can be accessed seamlessly. It's important to note that Flexopus is not entirely a SaaP since it is already accessible through the cloud, which is one SaaS criteria. However there are still some elements in the way Flexopus operates that resemble characteristics of SaaP. These will become more evident when the processes are showcased.

Key Systems for Business Operations: Flexopus relies on tools to support its day to day operations:

1. Email Communication and Inquiry Handling: HubSpot is used by Flexopus for managing email communication and handling inquiries from their website. This integration ensures organized interactions with clients.
2. Data Management, Storage and Tracking: Google Workspace serves as the hub for managing data, storage, collaboration and tracking at Flexopus. It plays a role in document sharing, collaborative marketing efforts, business development activities, sales projects well as tracking lead progress and customer interactions.
3. Back-end Database Infrastructure: NOVA continues to serve as the core database system for Flexopus. It supports functions such as reservations, resource allocation and data storage.
4. Invoicing and Financial Management: LexOffice remains the preferred platform for invoicing and financial management, at Flexopus. It simplifies billing processes and facilitates transactions.

At glance it seems that utilizing these tools could be effective and save time. While using tools to assist with BPs can be highly beneficial the outcome ultimately depends on how the tools are employed in the processes. The upcoming section of this chapter focuses on analyzing and modeling the existing processes. It also includes depicting the utilization of tools and the flow of data, within a process.

### **5.3 As-is process models**

The following chapter represents all five as-is process models of the CLC with each being accompanied by process descriptions. The CLC, aswell as the process models themselves were developed from an interview that was held with a co-founder and CEO of Flexopus. The five process domains of the CLC were selected since the interviewee believes that a transformation towards SaaS BPs would have the biggest influence on them. Hereby, the technical process of 'getting a software into the cloud' is neglected, since this is not a reoccurring BP compared to the process domains of the CLC. Assessing other BP domains like Marketing or the Hiring process, it becomes cleat that the CLC consists of the processes with the most potential to change during the BT.

The interview lasted for one hour and 6 minutes. The transcript can be found in the appendix [C](#)

#### **5.3.1 Sales**

The software sales process to potential customers (Leads) is initiated with the receipt of a General Inquiry via the contact form on the website or directly a demo call request (see Figure 9. This Inquiry can come through the website's contact form or

via a phone call. Once received, the Sales Manager, manages the leads Tickets within the HubSpot platform. After a preliminary quality check, the leads are distributed to a sales representative based on factors like lead size and language preferences.

For Object Inquiries higher than 20, It is foreseen that a demo call is scheduled and hosted through tools like Microsoft Teams. If the Lead doesn't respond to a demo call invitation, the Sales Rep will send a friendly reminder two weeks. When a demo call is about to take place, the assigned sales representative then readies themselves for the upcoming demo call by ensuring all necessary materials and information are prepared. This step is crucial for a successful presentation during the call. During the call, the sales representative showcases the software's features, benefits, and addresses any inquiries from the lead.

For Inquiries with requested Objects of equal or less than 20 a YouTube explanation video Link about the software is sent with a follow-up offer. The level of interest from the lead is evaluated following the demo call. Most leads express interest, which progresses the process, but even those initially uninterested receive follow-up communications with additional information to encourage reconsideration. Regardless of the initial response, a follow-up communication is dispatched, providing further details, an official Offer, and resources to maintain the lead's engagement. Subsequently, the lead reviews the offer and decides whether to accept, reject, or engage in further negotiations. Accepted offers move forward to the next phase. The accepted offer is formalized using the Lex Office tool, generating an offer that encompasses all pertinent terms and information. Should the lead not respond within a designated time frame, a friendly reminder is sent after two weeks to prompt their engagement. This step aims to ensure the lead provides feedback or makes a decision. Upon acceptance of the offer, the lead completes essential paperwork, including the signage of the offer and necessary forms. This information is then processed and stored in the customer's profile in Google Drive. The finalization of customer information, encompassing billing address, contract start date, and other pertinent details like the desired domain for their own Cloud instance of the Software, their company logo and their office maps in any human-readable format, takes place. This step ensures a seamless transition into the onboarding phase. As the offer is signed, the lead transitions into the customer category in a Google Sheets table. It is important to mention that from the first point of contact with the company, a potential Lead is documented in a Google Sheets Leads table, as well as every interaction and its outcome throughout the Sales process (for readability purposes, the Model does not contain a documentation task after every step). The onboarding process commences, covering software setup, customization, and training. Upon the successful transition to a customer, the sales process concludes. The lead's status is updated, and the customer enters the onboarding and support phase.





### 5.3.2 Onboarding

The onboarding process for a new customer is initiated once a new customer is recruited, which follows the sales process (see Figure 10). An email notification is received in the Flexopus support mailbox to trigger the process. The support team sets up a ticket in HubSpot to manage the onboarding process. The ticket contains information from the sales team, which ideally includes, customer documents and maps either attached in the email or organized in Google Drive. The support team then reviews and prepares the received maps for further processing in Figma.

In Figma, the maps are organized, and any necessary clarifications are sought from the customer. The maps are then uploaded to a new Figma file created for the new customer. The Map design team is briefed via the company internal communication channel to work on the requested map(s).

Concurrently, a new instance is set up in NOVA, where key data such as company information, logos, and user lists (if provided) are filled out. If the customer has opted for Single Sign-On (SSO) integration, a joint session with the IT team is scheduled for integration alongside the mapping process. This integration can run parallel to the map creation, provided the Customers Cloud instance is already created.

There are three main paths within the process: map creation, instance setup, and SSO integration. The instance setup includes populating relevant data and integrating customer-specific settings.

After the maps are ready, the instance is officially handed over to the customer via a comprehensive onboarding email. The email provides access to the help center, and the option for an admin demo training is offered. The onboarding process ensures that all relevant information is gathered before starting, and any potential questions or issues are addressed proactively. Any optional features like SSO integration and QR code modules are incorporated as needed.

QR code modules, if ordered, are prepared in-house, where QR codes are ordered externally to the Flexopus office, they're then manually cut into A4-sized sheets, and sent to customers as per their requirements. It is to mention though that roughly 10% of new customers order QR Codes.

Finally, a comprehensive onboarding email is sent to the customer with information about the completed setup, including any additional features. In summary, the onboarding process involves thorough preparation, map creation, instance setup, and the potential addition of optional features such as SSO integration and QR code modules. This process is geared towards ensuring a smooth transition for the new customer and facilitating their effective use of the platform.

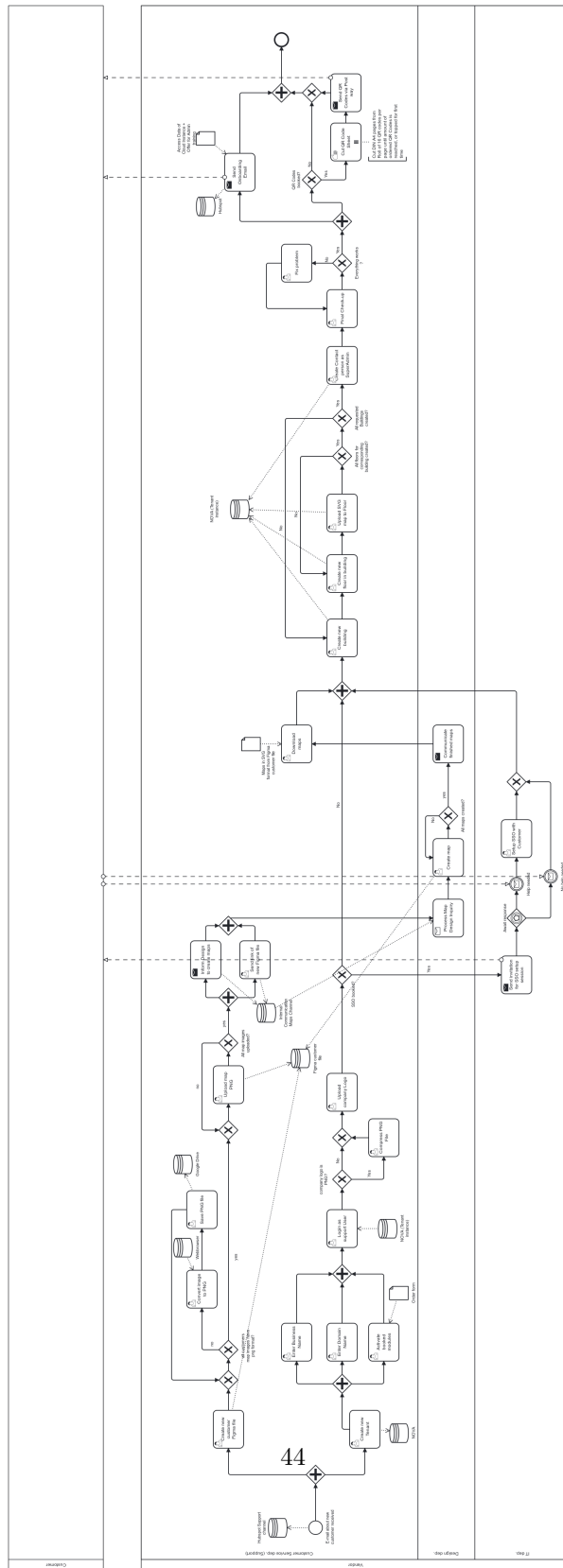


Fig. 10 Onboarding as-is BPMN process model

### 5.3.3 Customer Service

In the customer service process, there are different scenarios (see Figure 11): A customer can report a technical error, ask a question or address map changes and new object requests for existing customers. This scenario is common and involves various steps for efficient handling.

The process begins by receiving an email from the customer detailing the requested changes or additions to the map. An inclusive gateway for all three scenarios indicates that a customer, having standard way of email conversation, can send any of these requests in any email. So he could in theory write all the scenarios in one email directed to the Flexopus customer support. For general questions and Technical reporting, it is the customer supports' task to create a ticket for the technical support in case of technical reporting and provide a standard answer to the client, and/or research the answer to a specific question by the customer and give a tailored email response to that.

If there is a map change request in a received customer mail, this email is reviewed to understand the scope of the modifications. Attached screenshots are examined for clarity. Often, the customer's intent is explicitly mentioned in the email, providing insights into their requirements. Next, access is gained to the customer's cloud instance as an administrator using the NOVA database. This step allows downloading the current SVG sitemap, which forms the basis of the changes to be made.

For compatibility, attached screenshots in PDF format are converted to PNG or JPG. This is necessary for subsequent uploading and collaboration on Figma, the Map design platform. Once the resources are prepared, they are ready for the next phase.

Figma comes into play for effective collaboration. The customer's screenshot and desired changes are uploaded, along with the recently downloaded current SVG sitemap. This ensures alignment with the most recent version of the map.

The design team is engaged by sharing the Figma file link in the Maps channel on Mattermost, an internal chat platform with different channels, also a Map request channel with support and design team communicating in there. A brief description of the requested changes accompanies the link. This initiates the Design Lane's involvement in the process.

The Design Lane takes the lead from here. A new Design Inquiry is launched, and the necessary changes are incorporated into the map design as per the customer's specifications. Once these adjustments are completed, the Customer Service Lane is informed through the same Communication Channel about the successful implementation. The Customer Service agent downloads the newly designed or adjusted map with specific download specifications from the Figma file.

Moving forward, the concerned Office site map in the customer's instance is updated using the NOVA access. The CS agent conducts a comparison between the new SVG map and the previous version. If the changes align with the customer's requirements and everything seems to work fine, the updated map gets published.

Customer communication is crucial. An email is sent to the customer, informing them of the successful implementation of the changes. In addition, a record of all actions taken is maintained in the Customer Google Sheet, capturing the details of the modifications.

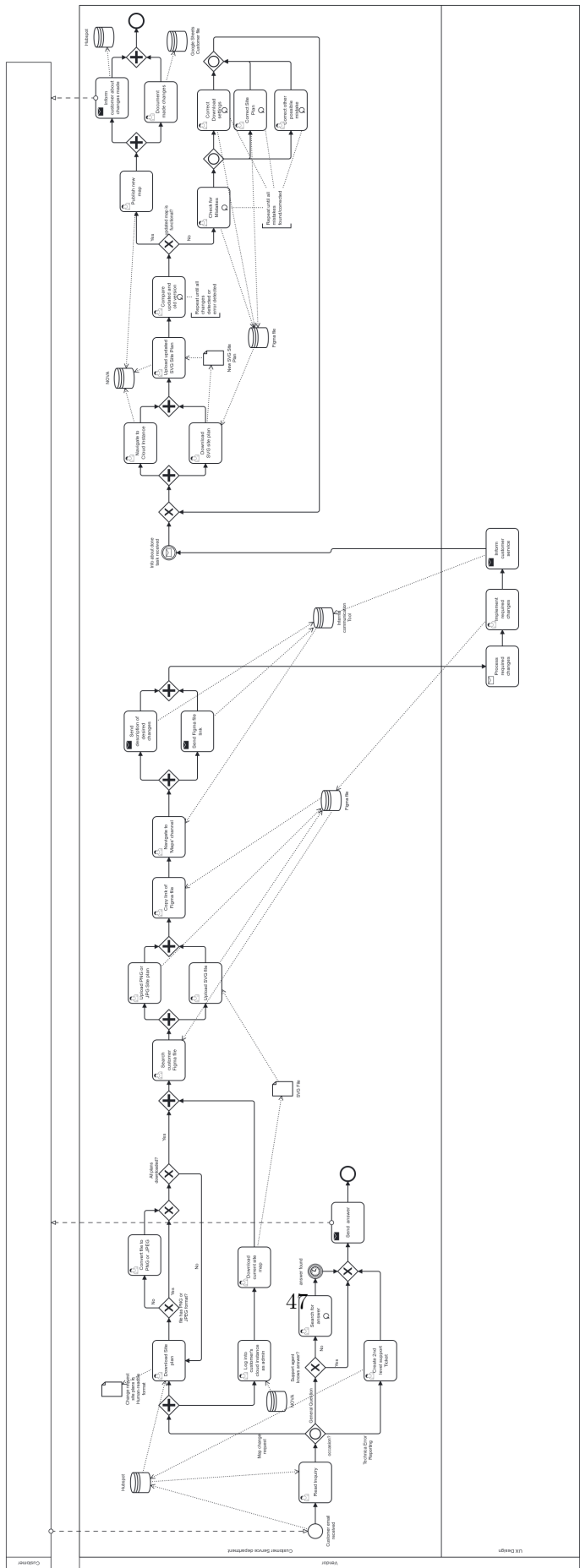
In cases where the updated map doesn't function as anticipated, troubleshooting is necessary. This could involve examining layers, export settings, and addressing any technical issues. The specific troubleshooting steps depend on the nature of the problem encountered.

Throughout this process, no specific Key Performance Indicators (KPIs) are mentioned. Instead, adherence to a Service Level Agreement (SLA) of completing map changes within a specified timeframe is emphasized.

For scenarios involving potential delays due to workload, a proactive approach is taken. Customers are informed in advance about possible extended timelines.

It's important to note that the process varies based on whether new plans are being created or adjustments are being made to existing plans. In the latter case, temporarily deactivating the map editor for the admin users of the customer in their Flexopus instance is necessary to ensure consistency during modifications.

This process encompasses the entire handling of customer service cases related to map changes and new objects.



**Fig. 11** Customer Service as-is BPMN process model

### 5.3.4 Invoicing

The invoicing process for customers involves several steps to ensure accurate and timely billing (see Figure 12). Customers are billed annually based on their contract starting on the first day of the respective month. The process begins by filtering the customer table based on the contract start date. The team reviews contracts that have reached their billing date, such as those starting on the 1st of a given month. In the middle of that given month, regular meetings are held to prepare invoices for contracts having their start dates on the 1st of that month.

For each customer identified, a check is performed to determine the original licensed amount of objects and to compare it with the real-time data in the system database, NOVA. If the number of objects has remained the same, an invoice is generated similar to the previous year, minus any one-time setup fees, if it is the second contract year or higher. In cases where the number of objects has increased, considerations are made to ensure an optimal approach. If the increase is within a certain limit, the next twelve months are billed at the higher object count. If the increase is significant, retroactive adjustments might be needed.

This retrospective adjustment involves determining the difference between originally licensed objects and the new count, which is then divided over the preceding months for accurate proration. The process is customized based on individual scenarios. In general, the goal is to avoid retroactive adjustments whenever possible.

The process has been streamlined by directly sending invoices from Lex Office, the platform used for creating offers as well. After the invoice is prepared, it undergoes a four-eye review to ensure accuracy, including verifying customer data and VAT ID. The final invoice is then sent to customers via email.

In cases where customers have queries or concerns regarding the invoice, explanations are provided. Corrections can be made if errors are getting identified, but generally, payments are received within a 30-day payment window. If payments are not made by the due date, reminders are sent manually, with two reminders being a common practice.

While there is no fixed rule for the number of reminders, the first or second reminder might lead to account suspension or termination if payment is not made. The process involves manually checking the customer list, filtering customers with overdue payments, and issuing reminders accordingly. Should a customer not be following the reminders and warnings in a timely manner, Flexopus will deactivate their cloud instance and terminate the contract.

The process also entails documenting the entire billing process in the customer document, including the rationale behind any adjustments or changes made to the original invoice. This documentation is essential for transparency and future reference.

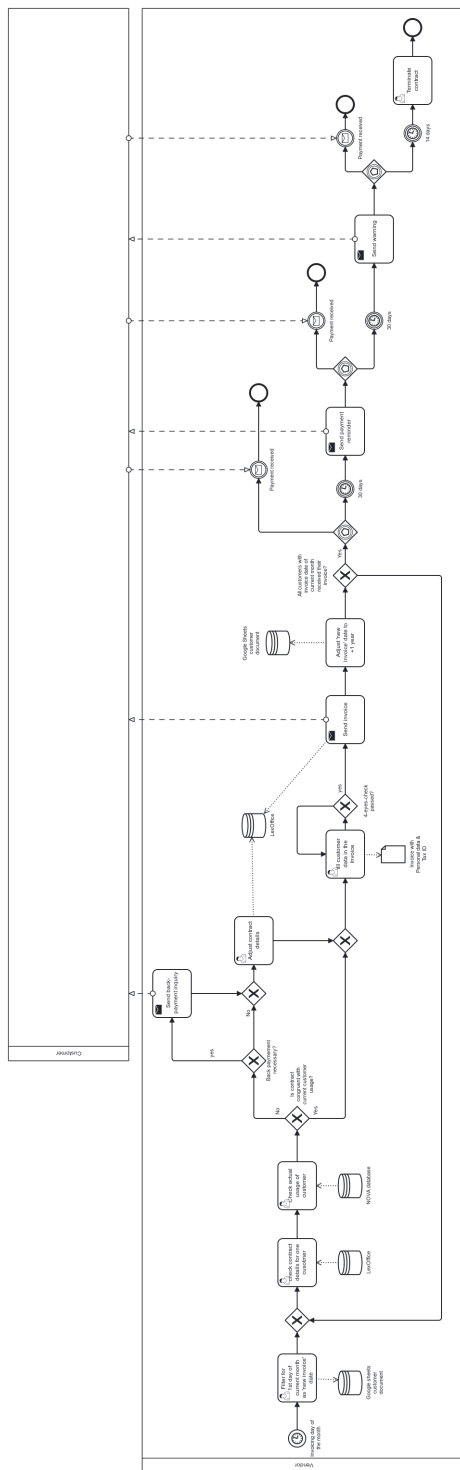


Fig. 12 Invoicing as-is BPMN process model

### 5.3.5 Termination

The contract termination process is relatively straightforward (13). It begins when a customer decides to terminate their contract or when a test license expires. In the case of test licenses that automatically expire after usually 3 months, they are treated similarly to contract terminations. Upon receiving the termination notice, the customer is contacted to inquire about the reasons for the termination. This step helps gather feedback and insights into the decision.

Once the customer's termination request is confirmed, the termination date is set. The customer is informed of this date, along with details about data deletion and other relevant information. The termination details are documented in the customer document in a Google sheets file, ensuring a record of the termination for reference.

In the current process, an employee is informed about the termination and manually enters an event in their calendar to archive or delete the customer's instance. This event is set to occur on the specified termination date. For instance, if a customer terminates their contract at the end of August, the employee responsible for termination schedules an event or reminder for August 31st to perform the necessary action.

After the calendar event is triggered, the customer's instance is archived or deleted in NOVA according to the set process. Customers are no longer informed after the confirmation of the termination, as the deletion process has been communicated beforehand.

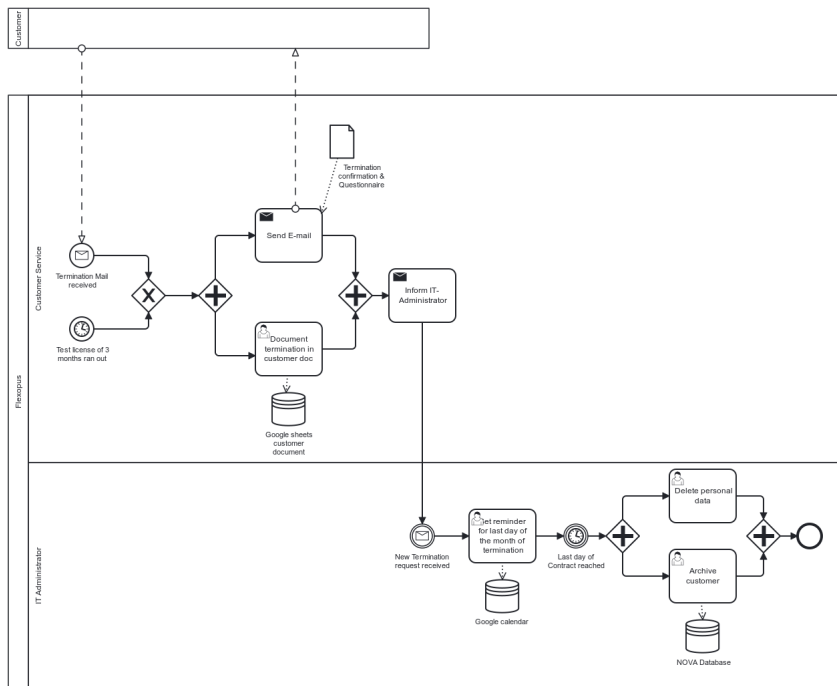


Fig. 13 Termination as-is BPMN process model



## 6 Systematic Literature Review

To enhance the overview and understanding of the topic of SaaS and SaaS companies BPs, a Systematic Literature Review (SLR) is conducted.

The search is limited to papers published in 2010 and after, to have relevant papers on the relatively novel topic of SaaS. The language of the studies has to be in English. As search engines, Google Scholar, IEEE xplore and ScienceDirect are used, since they offer the broadest amount of open access academic publications. Speaking of which, papers behind a paywall are not included in the SLR.

Transitioning from a SaaS software firm to a SaaS model has become a critical factor for organizations looking to capitalize on the benefits of cloud computing and subscription-based services. Based on insights from a collection of scholarly studies, the benefits are investigated, drawbacks, and best practices connected with this change in this SLR. Also, each process domain of the CLC is investigated more in depth in a second round SLR.

### 6.1 SaaS in general

#### 6.1.1 Advantages

Numerous advantages for software buyers and vendors have been emphasized across the range of reviewed papers, underscoring the appeal of adopting a SaaS model for software companies. The key advantages identified can be categorized as follows:

Firstly, flexibility is a prominent advantage of the SaaS model. It offers customers the ability to adjust their usage based on their needs without significant infrastructure changes or investments [98] [99]. This inherent flexibility allows for the scaling of services up or down as required, providing businesses with the agility to adapt to changing demands [100] [98] [101] [102].

Secondly, significant cost savings for the customer can be achieved through the adoption of SaaS. By eliminating the need for expensive hardware, infrastructure, and software licences, upfront costs are drastically reduced. Instead, customers can access the software over the internet and pay on a subscription basis, resulting in a reduced total cost of ownership over time.[100] [98] [103] [101] [104] [99] [102] [105] [106] Combined with this the revenue in the SaaS sector for software vendors has been increasing [107].

Another key advantage lies in the ease of deployment and maintenance provided by SaaS. With SaaS, software providers host and manage the software, alleviating customers from the burdens of installation, configuration, and maintenance. The responsibility for updates and patches lies with the provider, ensuring that customers always have access to the latest version without the need for additional effort on their part. [100] [98] [103] [101] [102] [105] Additionally, since the majority of clients use the same software product, bugs are less likely to occur due to a centralized maintenance for all licenses by the vendor. vendor has just one main version to develop, update and keep updated. [19]

The accessibility and ability to facilitate remote work are additional advantages of

SaaS. With SaaS applications being accessible from anywhere with an internet connection, businesses can embrace remote work setups and enable seamless collaboration among distributed teams. This enhanced accessibility promotes productivity and fosters global team cooperation. [108] [101]

Furthermore, the guarantee of quality of service is a notable advantage offered by SaaS providers. Through service level agreements (SLAs), SaaS providers ensure a certain level of performance, responsiveness, availability, and data safety. These agreements instil confidence in customers [100] [106], providing them with reliable access to the software and assuring them of the provider's commitment to delivering a high-quality service. [101]

SaaS providers also usually offer statistical information about software usage, allowing managers to optimize processes, and make better business decisions. Integration with ERP solutions can provide additional business insights. [105]

One advantage of SaaS that was not mentioned often, but nevertheless also important, is the avoidance of software piracy: SaaS eliminates software piracy as all service programs are controlled by the SaaS application providers, who govern user authentication, software upgrades, and maintenance. [102] [106]

Lastly, adopting a SaaS model allows software companies to expand their market reach. By offering highly standardized products and services with minimal value-adding components [100], SaaS enables low costs, prompt deployment, and accessibility for small and medium-sized enterprises (SMEs). This standardized approach broadens the customer base, facilitating the acquisition of a wider clientele. [103]

### 6.1.2 Disadvantages

While the advantages of transitioning to a SaaS (SaaS) model are compelling, it is essential to acknowledge the potential disadvantages associated with this transformation. The reviewed papers shed light on the following drawbacks:

One significant concern is the dependency on a reliable internet connection for SaaS applications. Any disruptions or slow connections can have a direct impact on workflow and hinder access to the software, potentially leading to productivity and performance issues within the organization. [98] [101] [99]

The monthly subscription based model is generating less revenue upfront compared to a one time high payment. Additionally, high customer acquisition cost results in a prolonged amortisation phase for each customer. [103]

Another drawback is the limited customization options offered by SaaS applications. As these applications prioritize scalability, they may not provide extensive customization capabilities compared to traditional on-premise solutions. This reduced level of customer control can pose challenges for businesses with specific requirements or unique workflows. [101] [19] SaaS services provided for public IT systems may not easily satisfy the individual needs of SMEs, and customization options need to be developed to better meet those demands [102].

Data security is a crucial concern when it comes to storing data in the cloud. The papers highlight the need for trust in the SaaS provider's ability to handle data securely and comply with relevant regulations. Concerns about breaches or unauthorized access

to sensitive information must be carefully addressed to ensure the protection of customer data. [98] [101] [99] [102] [105]

Vendor lock-in is a potential challenge when switching between SaaS providers. The complexity involved in data migration and the potential disruptions to business operations during the transition can make customers feel locked into a specific provider. It is essential for businesses to carefully consider the long-term implications and potential difficulties before committing to a particular SaaS provider. [101] On the other hand, when data transfer is not an issue, vendor-lock in is low, which is problematic for the software vendor, who therefore has to spend a lot on product management and also product marketing to keep customers and also gain new ones frequently [19].

By acknowledging these potential disadvantages, businesses can make informed decisions and implement appropriate strategies to mitigate the associated risks. It is crucial to evaluate these drawbacks alongside the advantages, and carefully assess the specific needs and circumstances of the organization before embarking on the transformation to a SaaS model.

### 6.1.3 Best practices

The reviewed papers not only highlighted the advantages and disadvantages of transitioning to a SaaS model but also shed light on Best practices that are crucial for businesses embarking on this transformation. These guidelines provide insights into the best practices for a successful transition:

One important aspect emphasized by the papers is organizational learning. Establishing a culture of continuous learning within the organization enables integrated employees to adapt and thrive in the SaaS model environment. It promotes the acquisition of new skills and knowledge necessary for the transformation. [109] [107] [106] Clearly defining roles and responsibilities is another critical factor. When everyone understands their specific roles and responsibilities, it facilitates smooth collaboration and effective utilization of resources throughout the entire transformation process. [109]

Effective change management strategies are crucial for overcoming resistance and ensuring a successful adoption of the SaaS model. Implementing well-planned change management initiatives helps employees navigate through the transformation, embrace the changes, and maximize the benefits of the new model. [109] [108] [106]

Aligning the organizational structure with the requirements of the SaaS model is essential for efficient operations and communication. Adapting the structure to support the unique characteristics of the SaaS environment promotes agility and enables effective decision-making. [109]

Direct online sales and marketing channels play a significant role in the success of the SaaS model. Leveraging these channels enhances customer acquisition and retention, as well as the overall growth of the business. [100] [108] [103] [110] [104] [106] Introducing the monthly subscription based licensing model is a common Sales aspect in SaaS products [105] [106].

Service-level agreements (SLAs) are critical in the SaaS environment. Offering guaranteed quality of service based on factors such as responsiveness, availability, planned downtime, and data safety is essential for building customer satisfaction and trust.

[101] [99] [106]

Providing scalable services that can adapt to changing workload demands and ensuring high SLA compliance is crucial for efficient service delivery. Scalability enables businesses to accommodate varying customer needs and maintain service levels consistently. Therefore, the sale of features is important, in order for customers to select the offer with the features they need. [100] [101] [99]

Other paper also mentions the scalability of the BT towards an SaaS company itself. Therefore, the paper recommends a gradual transformation that implements features step by step and tests them out in order to adjust and then continue. [111] [100] [108] [104] [106]

Optimizing the total cost of ownership (TCO) is a key consideration. Achieving a low TCO, including low incremental costs, is essential for the sustainability of the SaaS business model. It involves managing costs effectively while delivering value to customers. [98] [103] [106] Also the aspect of resource consumption in the sense of 'pay per usage' is considered by a paper for keeping the TCO low [101].

Data isolation strategies and robust security measures are vital to protect customer data and build trust. Implementing mechanisms that ensure data isolation and enhance security contributes to the reliability and integrity of the SaaS model. [100] [101]

Understanding customer requirements and offering customization options within the SaaS model is crucial. Tailoring the services to meet specific customer needs enhances customer satisfaction and retention, ultimately driving business growth. [100] [101] [99] Nevertheless, offering standardized feature packages is essential for the general scalability of the SaaS product. Customer specificity is only recommended with extensive compensation compared to standardized software packages. [103] [112] [106]

## 6.2 SaaS Processes

When looking at the results of the SLR so far, it becomes eminent that with the search terms used, general results are found that do not necessarily dive deeper into the BPs of SaaS companies. They rather give general directional guidelines for structures in a SaaS company and the transformation towards it from SaaS. Therefore, a second round SLR is conducted, where the search term is tailored towards the introduced CLC. The search term "[Insert BP here] process in SaaS companies" is used to produce papers that have the potential of discovering more tangible findings for each BP that is worked on in this Thesis. E.g. for Sales, the search term is "Sales process in SaaS companies". At the end, ten papers are usable for this specific case:

### 6.2.1 Sales

The synthesis of the three papers on best practices for Sales Processes in the SaaS industry reveals a cohesive set of insights and common themes.

The research of the paper by Tyrvaainen [113] investigates various factors influencing SaaS providers' marketing and sales, focusing on service models, revenue sources, customer and provider sizes, communication channels, sales strategies, transaction sizes, customer lifetime value, and an updated business model. It reveals diverse service and

implementation approaches among providers, varied reliance on SaaS fees versus professional services for revenue, and a correlation between provider and customer sizes. The study highlights the use of digital and personal marketing, the predominance of personal selling, the significance of entry transaction sizes in revenue generation, the complexity of estimating customer lifetime value, and an enhanced model emphasizing customer relationship management and key performance indicators for success.

The second paper about Sales process in SaaS claims that the sales process for SaaS ERP solutions involves a series of steps, starting with lead generation through marketing efforts and customer referrals. Contact is made with leads, prioritizing quick responses and understanding their needs and decision-makers. Convincing the lead involves clear communication of the product's value, addressing concerns about information security and software reliability. Demonstrations showcase the solution's features, followed by deal negotiations, focusing on terms like pricing and training. The final steps include closing the deal, deployment, training, and process support, concluding with ongoing CRM efforts to maintain long-term relationships and monitor key performance indicators like revenue and customer satisfaction. [114]

The third paper is a case study about a company 'Y'. Y's sales process for transitioning to a SaaS vendor involves analyzing its current hybrid sales model, characterized by complexity and lengthy cycles. The company is positioned towards the enterprise end of the SaaS spectrum but with lower pricing. Improvements focus on simplifying the sales process, reducing acquisition costs, and shortening sales cycles, considering the product's complexity and the involvement of multiple decision-makers. The process, from customer acquisition to community building, emphasizes personal selling. Recommendations include ongoing optimization of the sales process, better prospect qualification, and reconsideration of pricing strategies for deployment support. [115]

The commonalities across the three papers focus on the complexities of the SaaS sales process, including the importance of personalized selling and the need for a clear understanding of customer needs and decision-makers. All emphasize the significance of lead generation, customer relationship management, and the use of key performance indicators for measuring success. Additionally, they highlight the need for ongoing process optimization, balancing pricing strategies, and addressing the specific challenges of selling SaaS solutions, such as service model diversity and entry transaction sizes.

### **6.2.2 Onboarding**

Also the Onboarding process domain is represented by three papers that are showcased each in the following subchapter.

The case study paper on the Customer Onboarding Process for 'ABC Oy' outlines a comprehensive strategy to enhance user onboarding. Key practices include optimizing each onboarding step individually, using user commitment as a performance metric, and employing data capture for user behavior analysis. Emphasis is placed on user

feedback and co-creation, fostering user loyalty through positive experiences, and a deep understanding of user needs. It advocates for a clear transformation roadmap, differentiated by short, mid, and long-term implementation goals. User engagement is prioritized throughout the onboarding, along with empowering frontline staff and adopting an automation mindset for improved user experience. This approach aims to create a more engaging, adaptable, and user-centric onboarding experience. [116]

The second paper on transforming software vendors into SaaS providers for the onboarding process recommends customizing onboarding for different user groups and managing resources efficiently, possibly through outsourcing or automation. It emphasizes the importance of data collection and activity tracking, personalizing the onboarding experience based on customer research, and clarifying onboarding terminology. It also suggests using software tools and automation to enhance efficiency, conducting comparative research between onboarding managers' and customers' experiences, and exploring self-learned onboarding for smaller clients to improve customer satisfaction and product adoption. [117]

In the process of transitioning a traditional software vendor to a SaaS model, the onboarding process should prioritize flexibility and problem-solving in early growth phases. It's essential to create an agile organization ready to address unforeseen challenges. As the company grows, the focus should shift towards balancing efficiency with product functionality and implementing automation in routine tasks. Effective collaboration with both internal teams and customers, including collecting customer insights and ensuring seamless information flow between sales and onboarding teams, is crucial for a successful transition. [118]

The common themes across the three papers on transitioning from a traditional software vendor to a SaaS model in the context of customer onboarding include the emphasis on personalizing the onboarding process for different user groups, prioritizing user engagement and feedback, and the importance of data-driven insights. They all advocate for a flexible, agile approach in early stages, with a shift towards efficiency and automation as the company matures. Ensuring seamless collaboration between internal teams and customers, along with continuous improvement based on user feedback, are also highlighted as key to a successful onboarding strategy.

### **6.2.3 Customer Service**

For the customer service process domain another three publications were found that are presented in the following:

The first study by Benlian [119] evaluates SaaS service quality against customer expectations, revealing gaps in responsiveness and Security/Privacy. Using structural modeling, it confirms the impact of service quality on customer satisfaction and continuance intentions, with responsiveness and security/privacy being key drivers. The research suggests prioritizing these areas for improvement. It introduces the

SaaS-QUAL scale for assessing service quality, emphasizing its role in shaping customer satisfaction and offering actionable insights for SaaS providers to enhance their services and align with customer expectations.

The second paper discusses transforming traditional software vendor processes into SaaS, focusing on customer service. It covers the importance of managing the purchase-to-pay function, catering to diverse users, and the significance of monitoring end-user experiences. Data collection to understand user behavior, factors affecting user satisfaction, and the role of web analytics in service management are emphasized. The paper also highlights managing customer expectations, balancing accommodating and shaping these expectations, and maintaining a human touch in customer care as key practices for a successful transition to SaaS. [120]

Thirdly, the publication by d'silva [121] addresses the challenge of managing high volumes of user messages across different platforms for customer service in a SaaS context. It proposes a system architecture utilizing a Chatbot and AWS cloud technologies. Key components include Multi-Agent Systems for collaborative problem-solving, chat-driven architecture for group coordination, and a specific focus on interaction design for social TV applications. The architecture integrates various technologies for efficient message processing and user interaction, with a mechanism to persist users in chat rooms. The system's efficacy in managing customer interactions and enhancing user experience, by programming the chatbot to give human-like responses is demonstrated through its results. The authors claim to see cost saving potential with using chatbots, while keeping the customer satisfaction.

The three studies share a focus on improving customer service processes in the transition to SaaS. Benlian's study identifies gaps in responsiveness and security/privacy as key areas impacting customer satisfaction, suggesting improvements based on the SaaS-QUAL scale. The second paper emphasizes diverse user needs, end-user experience monitoring, and the importance of human touch in customer care. D'Silva's paper however addresses efficient management of user messages using a chatbots, highlighting cost-saving potential while maintaining customer satisfaction. This viewpoint is different than the other two papers, where the human touch is still claimed as important.

#### **6.2.4 Invoicing**

For the Invoicing BP domain, one usable paper was found in total. The paper is presented followingly:

Transforming a traditional software vendor into a SaaS provider involves upgrading the invoicing process. Key practices include adhering to minimum data requirements as per VAT Act, integrating invoicing with supply chain processes, and implementing an invoice management system. Transitioning to electronic invoicing (e-invoicing) is essential, using formats like EDI and XML, and ensuring compliance with legal

frameworks. Online invoicing offers benefits like customer engagement and efficient payment tracking, while providing valuable customer data for marketing and relationship enhancement.[122]

### 6.2.5 Termination

During the search attempts for the Termination process domain, no fitting papers were found covering the topic of best practices in SaaS. This could stem from termination being a relatively small and non-value creating use case and therefore probably often overlooked.

The remodeling of this process will be based on general guidelines for BPs in SaaS. The separate search for each BP domain also brought forward some other papers that focused on SaaS and brought some already covered guidelines and some new ones that were not covered yet.

### 6.2.6 SaaS Business Processes in general

The synthesis of insights from two research papers on BPs in SaaS companies in general, offers a comprehensive guide to enhancing operations, customer experience, and overall success in the dynamic SaaS industry.

The first paper by Opanasenko [123] lists several points that are important for a BT towards SaaS. These include value-based pricing, customer segmentation, personalized engagement, structured (automated) onboarding, continuous support, and co-creating value with customers. Monitoring success through KPIs, aligning marketing and sales, leveraging event marketing, and mapping the customer journey are also crucial. Additionally, integrating self-service capabilities, flexibility in customization, and focusing on building customer loyalty are key to a successful transition.

The second publication speaks about best practices for transforming a traditional software vendor into a SaaS provider. This involves a gradual productization process, starting with a proof of concept phase and advancing based on market feedback. Close collaboration across departments ensures customer feedback drives product development. Marketing strategies evolve from lightweight presentations to more substantial materials as the product matures. Sales initially target known prospects, expanding as the product develops. Automating various processes, including invoicing or product delivery, as the vendor moves to higher productization levels is considered important. Conducting market research, maintaining a clear product roadmap, and focusing on quality are vital. Early customer references, effective portfolio management, continuous improvement, and cautious resource allocation are also key to successful transition. [124]

The commonalities between the papers include emphasizing customer-centric approaches, such as value-based pricing, personalized engagement, and structured onboarding. Both papers stress the importance of customer feedback in shaping product development, continuous support, and leveraging technology for efficiency, like automated processes and self-service capabilities. The first paper highlights aligning



marketing and sales, using KPIs for monitoring success, and building customer loyalty, while the second focuses on a gradual productization process, market research, maintaining a product roadmap, and prioritizing quality over speed. Differences lie in the specific strategies and stages of SaaS transformation.

### 6.3 SLR Conclusion

Concluding the SLR, the following guidelines are mentioned most frequently with the biggest impact on the operational aspect of a software company and its BPs. These eleven guidelines are utilized to guide the modeling of the to-be processes in this thesis, depending on their suitability for the different process domain. At the same time, these guidelines also probe the challenges for a successful BT towards SaaS and are therefore also the answer to *SRQ1: What are the key business challenges and considerations involved in the Business Process transformation from SaaS to SaaS?* While many of the previously mentioned guidelines are important for transforming a company's BPs toward SaaS, some can have a more immediate and tangible effect on the transformation process. The following guidelines are likely to have the most significant impact:

1. **Organizational Learning:** Establishing a culture of continuous learning within the organization is critical. This guideline can have an immediate impact by ensuring that employees are equipped with the skills and knowledge necessary for the SaaS model. It enables them to adapt quickly to the new environment, which is essential for a successful transformation.
2. **Change Management:** Effective change management strategies can help overcome resistance to change and ensure a smooth transition to the SaaS model. When employees understand the reasons behind the transformation and are guided through the process, it can lead to faster adoption and minimize disruptions.
3. **Customer-Centric Approach:** Throughout the SLR, there is a consistent emphasis on a customer-centric approach in various aspects, including sales, onboarding, customer service, and customization. Putting the customer at the center of the processes can result in more immediate benefits, such as improved customer satisfaction, increased loyalty, and potentially higher revenue.
4. **Key Performance Indicators (KPIs):** Implementing KPIs for tracking and measuring the effectiveness of the SaaS processes provides immediate insights into what's working and what needs improvement. This data-driven approach allows to make informed decisions and adjustments in real-time.
5. **Sales Process Optimization:** Optimizing the sales process, including lead generation, qualification, and personal selling, can lead to more immediate results in terms of acquiring new customers and driving revenue growth.
6. **Effective Onboarding:** A structured and effective onboarding process ensures that

customers can quickly and successfully start using the SaaS solution. This can lead to higher customer satisfaction and retention right from the beginning of the transformation.

7. **Online Invoicing:** Transitioning to online invoicing can result in immediate cost savings, increased efficiency, and improved customer experience. It's a tangible change that can be implemented relatively quickly.

8. **Self-Service Empowerment:** Implementing self-service options across various stages of the SaaS processes can empower both customers and internal teams. By allowing users to perform tasks independently and access information at their convenience, self-service not only enhances efficiency but also contributes to immediate customer satisfaction and operational streamlining. It is a pivotal aspect of modern SaaS transformations, providing tangible benefits in terms of scalability, cost reduction, and user empowerment.

9. **Automation:** Adopting automation in various aspects of the SaaS processes, such as onboarding, customer support, and invoicing, can lead to immediate efficiency gains and reduced manual workload.

10. **Data-Driven Insights:** Collecting and analyzing data to gain insights into user behavior, platform usage, and interactions can lead to quick improvements in the SaaS offering, customer engagement, and operational efficiency.

11. **Continuous Improvement:** The commitment to continuous improvement and the willingness to adapt to changing market conditions and customer needs can provide ongoing benefits and ensure the long-term success of the SaaS transformation.

While these guidelines can have the most immediate and tangible impact, it's important to recognize that successful SaaS transformation is a holistic process that often requires a combination of these practices. The effectiveness of each guideline may also depend on the specific context and challenges of the company. Therefore, a well-rounded approach that addresses multiple aspects of the transformation is generally the most effective strategy.

## 7 To-be Processes

The following chapter dives deeper into the desired outcome and showcases a possible future version of the five process domains (CLC), based on the findings and best practices derived from the SLR that are applicable in the the specific case. Each process domain comes with a BPMN model and the process description of the model.

### 7.1 Sales

The process initiates when a customer selects a package on a vendor’s website (see Figure 14). At this juncture, the process branches based on the type of inquiry: If they decided on an Enterprise package, the as-is Sales process would come into play again, where the interested party contacts the vendor in order to arrange a future agreement in events of human interaction. If it’s a subscription or subscription trial, the customer is prompted to provide their information in a form. Should the customer fail to submit their information within 20 minutes, the process times out and terminates for this path.

Assuming the customer inputs their details, the data—comprising name, email, phone number, credit card information, password, acceptance of conditions, and the number of objects—is captured and saved in the Customer Relationship Management (CRM) system. Simultaneously, a payment request is initiated. If the payment process encounters issues, the system is designed to attempt the payment process up to two more times.

In scenarios where the payment is successful, the system transitions into a sub-process dedicated to starting the customer’s subscription. If at any point the customer decides to exit the order process—be it due to non-submission of information, payment failure, or a timeout—the process reaches its conclusion without a subscription activation. Upon successful confirmation, a customer account is then established in the NOVA database, marking the successful completion of the subscription process.

Throughout this procedure, the system interacts with various external tools, such as the Subscription Management System (SMS) and the Payment Tool, to manage subscriptions and handle payments, respectively. The end-to-end process is a confluence of tasks, decision points, and system interactions that collectively facilitate the subscription setup for the customer.

### 7.2 Onboarding

Upon a new customer’s registration an automated process is initiated (see Figure 15). The customer simultaneously receives a standard onboarding email sent from the CRM and is evaluated to determine if they have accessed the admin area. If they have, a tutorial specific to the software application is saved for their reference and is guided through by the system step by step and ends with the customer being led to the Admin Area where they have some more steps to fulfill in order to roll out the application company wide.

Following this, the process branches into two distinct yet concurrent sequences. The first sequence involves a meticulous process where the customer can repeatedly add and detail various buildings and their respective floors until all their requirements

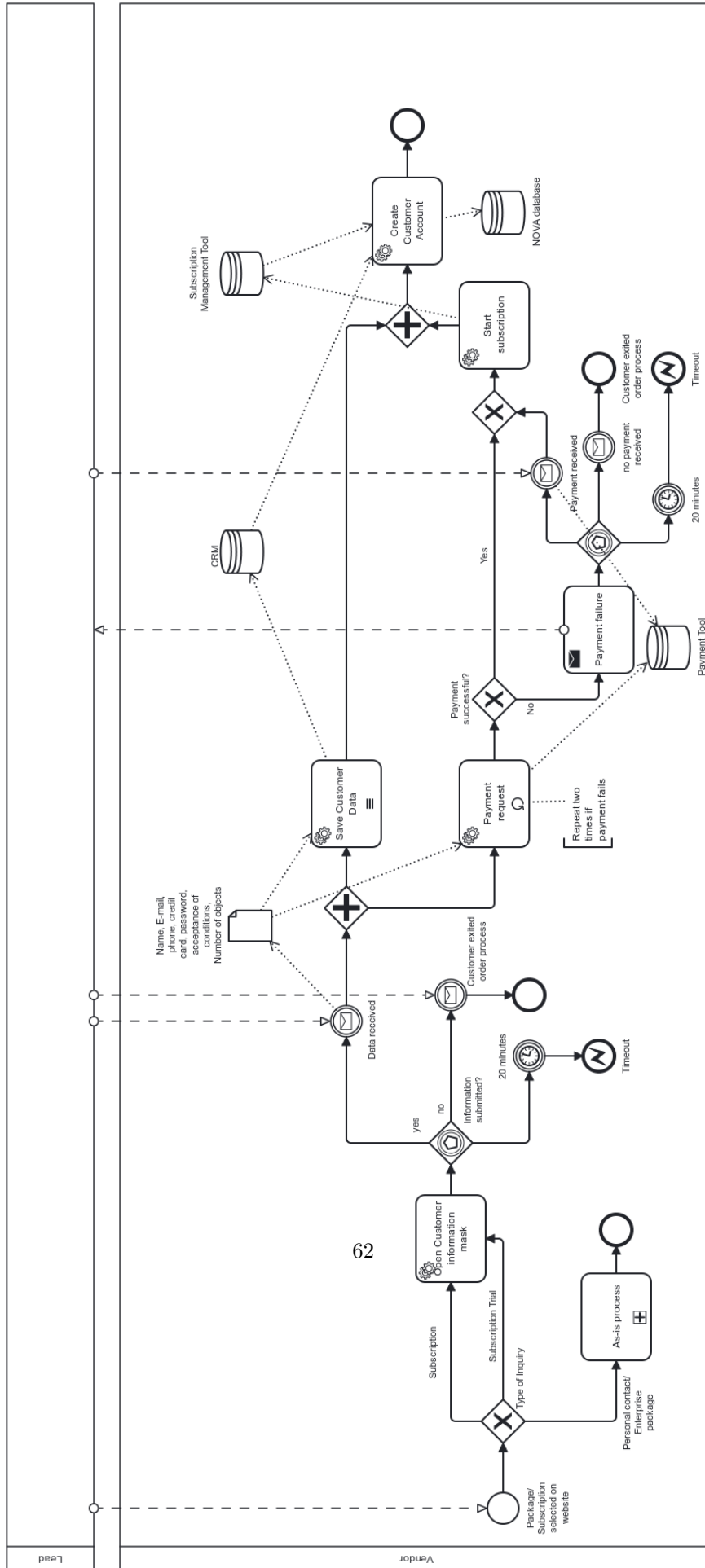


Fig. 14 Sales to-be BPMN process model

are met. Parallely, the customer's device domain name is saved. This information is mandatory in order to start using the software company wide.

Four tasks are then optional but recommended, so at least one of them has to be fulfilled: saving the uploaded client logo for their cloud instance (standard flow), activating Single Sign-On (SSO), saving imported users, and inviting users through email. The two latter including their own looped actions to ensure all users are accounted for and properly set up in the system.

After all sequences are complete, the process checks if there is a need to generate QR Codes. If affirmative, QR Codes are generated and compiled into a PDF. Once this task is accomplished, or if QR Codes are not needed, the process advances to a series of user-related tasks.

As the last step, the convergence of all tasks at a final decision point signals the completion of the customer onboarding process. This comprehensive approach, facilitated by the BPMN model, ensures a thorough and efficient onboarding experience for the customer, integrating various operational facets from email communication to user management within a cohesive workflow.

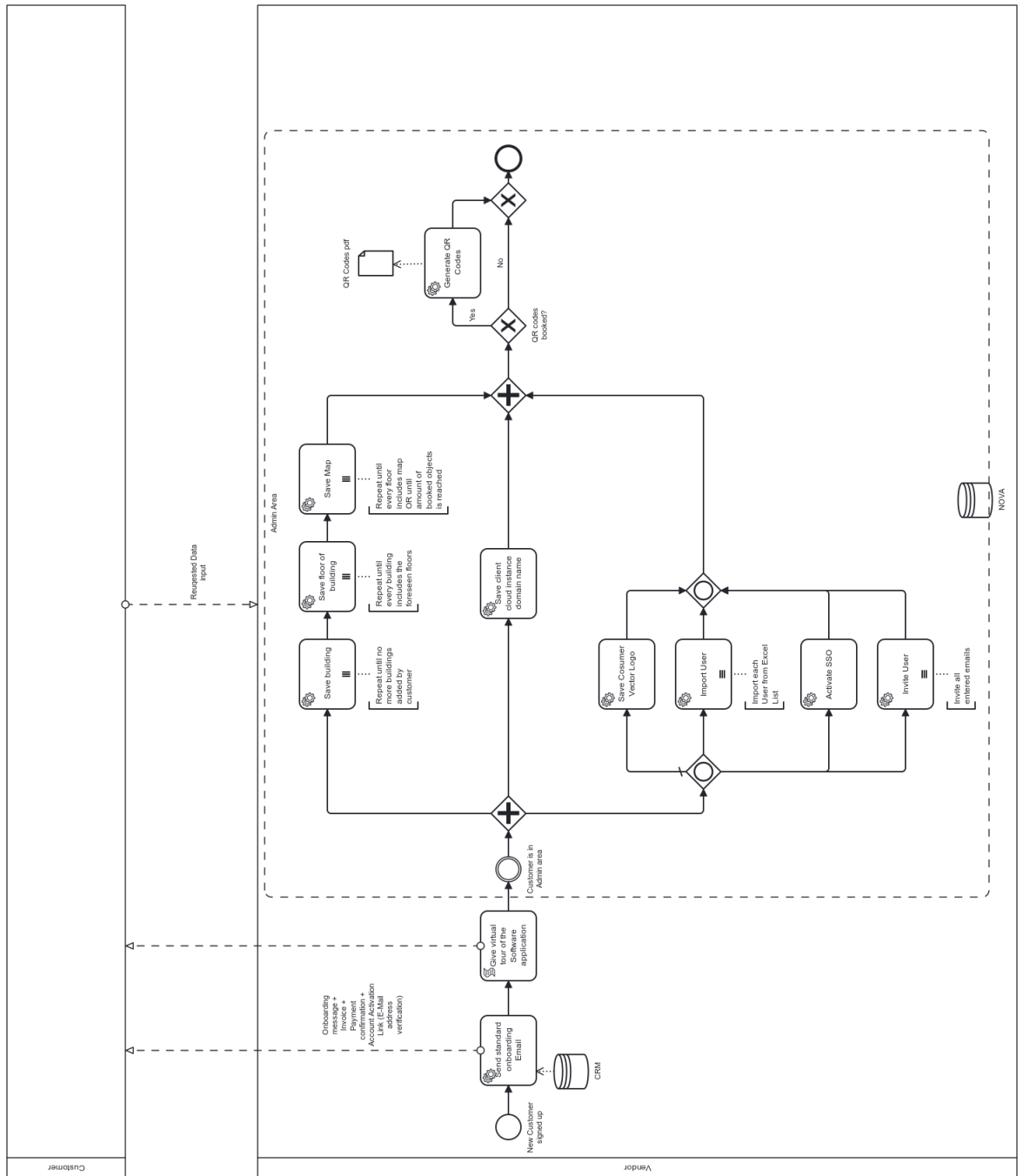


Fig. 15 Onboarding to-be BPMN process model

### 7.3 Customer Service

In the process of SaaS customer service the main focus revolves around empowering customers to take charge of map changes and requests for objects in their existing accounts. This is accomplished through a user intuitive approach (see Figure 16).

For the customer service there are different paths again depending on the Inquiry. In the to-be model different Inquiries and process paths are started by certain actions of customers:

A customer initiates the Map change process by opening a map in the editor, which triggers a wait state for any changes made by the customer. If the customer makes changes within 20 minutes, the 'Edit map change process' is extended; otherwise, a timeout occurs. When changes are made, an evaluation of the type of change follows:

- If the number of objects has increased, the change is saved in the temporary Cache, and an object added checklist is updated in the SMS.
- If the number of objects has decreased, the change is saved in the Cache.
- If the number of objects stays the same, the change is still saved in the Cache. This case is applicable when the customer for example moves existing objects on the office map to represent the changes they made in their actual office (moving desks, combining rooms, etc.).

This leads to a decision point checking if all changes are done. If yes, the process checks if the number of objects has increased or decreased.

If increased, the process requests payment for additional objects through a payment tool. If payment is authorized, the map update process ends, and changes are updated in NOVA, as well as the future subscription fee is updated in the SMS. If not authorized, or after a timeout, the process ends without updating.

If decreased, the SMS adjusts to the new and lower Subscription fee. If the number of objects stays the same, the process proceeds directly to the customer support interaction.

Separately, another customer support process is when a question or a technical error reporting is detected: The process determines the type of interaction. If the customer has a Question of any kind related to Flexopus, they can choose to read the FAQ or interact with the integrated chatbot. If the FAQ is chosen, and the answer is found, the process ends. If not, the customer has the option to open the chatbot window for further interaction (Additional thoughts: The chatbot window could open automatically after a while if the the system detects someone to be on the FAQ page for a while).

The chatbot processes the input of the inquiry and then checks if it was a technical report or a question. If it's a technical error reporting / feature request, a ticket is saved and a standard answer is given. The ticket is saved in the CRM in order for humans to read it and work on the ticket.

If it is a simple question the chatbot gives an answer based on its trained knowledge base. If the chatbot interaction continues, the process checks if another question is asked by the customer. If there are more questions, the loop continues until no further questions are asked. If the chatbot does not have an answer to a customer question, the bot gives contact information for human contact. If no further questions

are asked, every chat interaction data is saved, and the process ends. This BPMN diagram effectively manages two core business operations: map editing, which includes a payment step for additional objects, and customer support, which utilizes a chatbot and FAQs to resolve customer queries efficiently. The processes demonstrate an integrated approach to handling edits and support within a software environment, ensuring that customer interactions are as streamlined as possible.



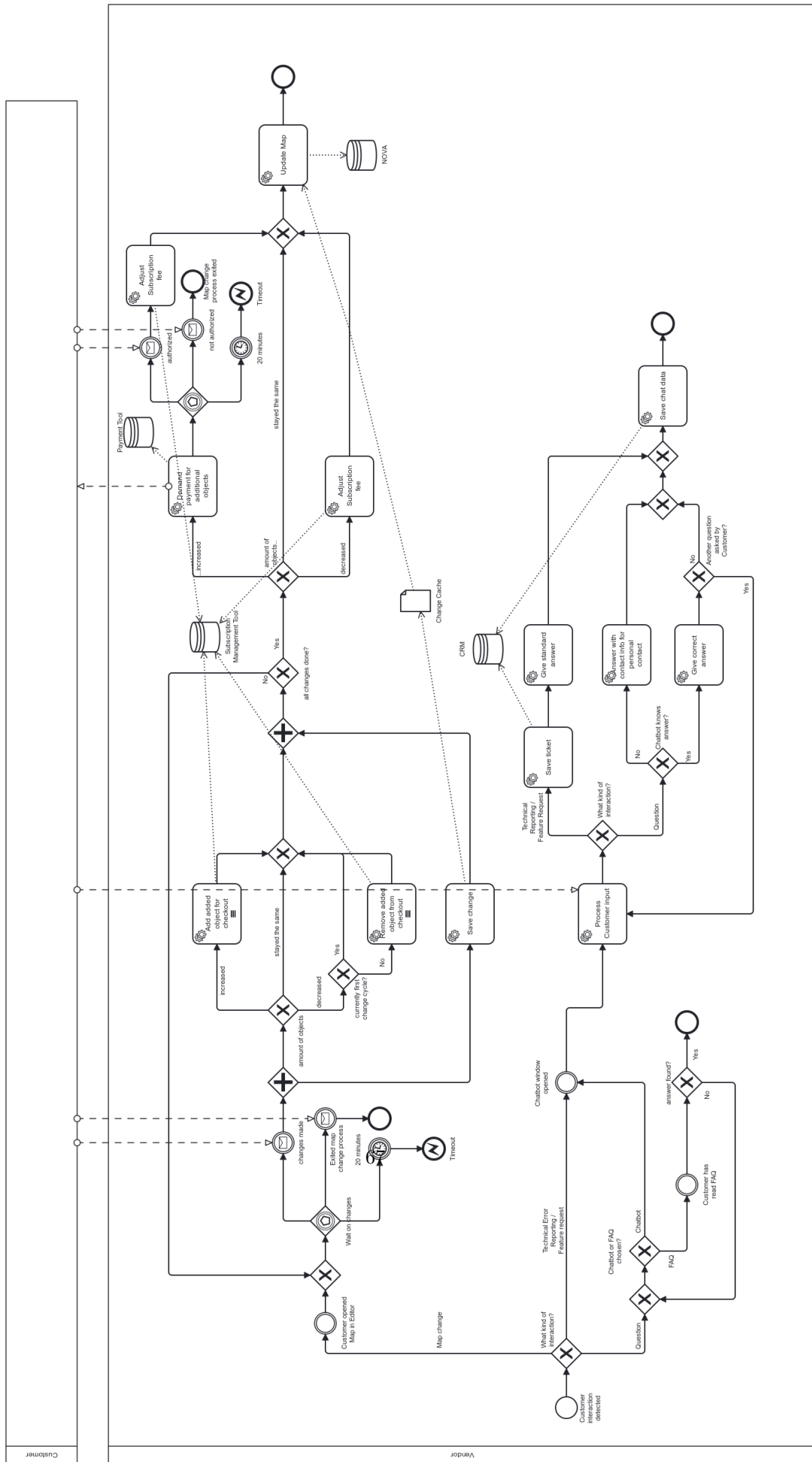


Fig. 16 Customer Service to-be BPMN process model

## 7.4 Invoicing

The subscription payment process initiates when the payment due date for a customer's subscription is reached (see Figure 17). First, the vendor collects all necessary subscription information. Following this, a payment request is created and the system attempts to charge the customer's selected payment method. If the charge is unsuccessful after up to three attempts, a payment reminder is sent to the customer.

The process then enters a waiting phase, pausing for two weeks for the customer to respond. If the payment is received during this period, the customer's status is updated to 'paid' in the SMS, and an invoice is provided to the customer via the customer portal.

However, if the payment is not received, the vendor begins to send weekly warnings to the customer, continuing to do so for as long as legally permissible. If the customer eventually pays, the process circles back to update their status to 'paid.' If the customer fails to make the payment after the warning period, the subscription is terminated, and the customer's cloud instance is subsequently deactivated in the NOVA system, concluding the process.

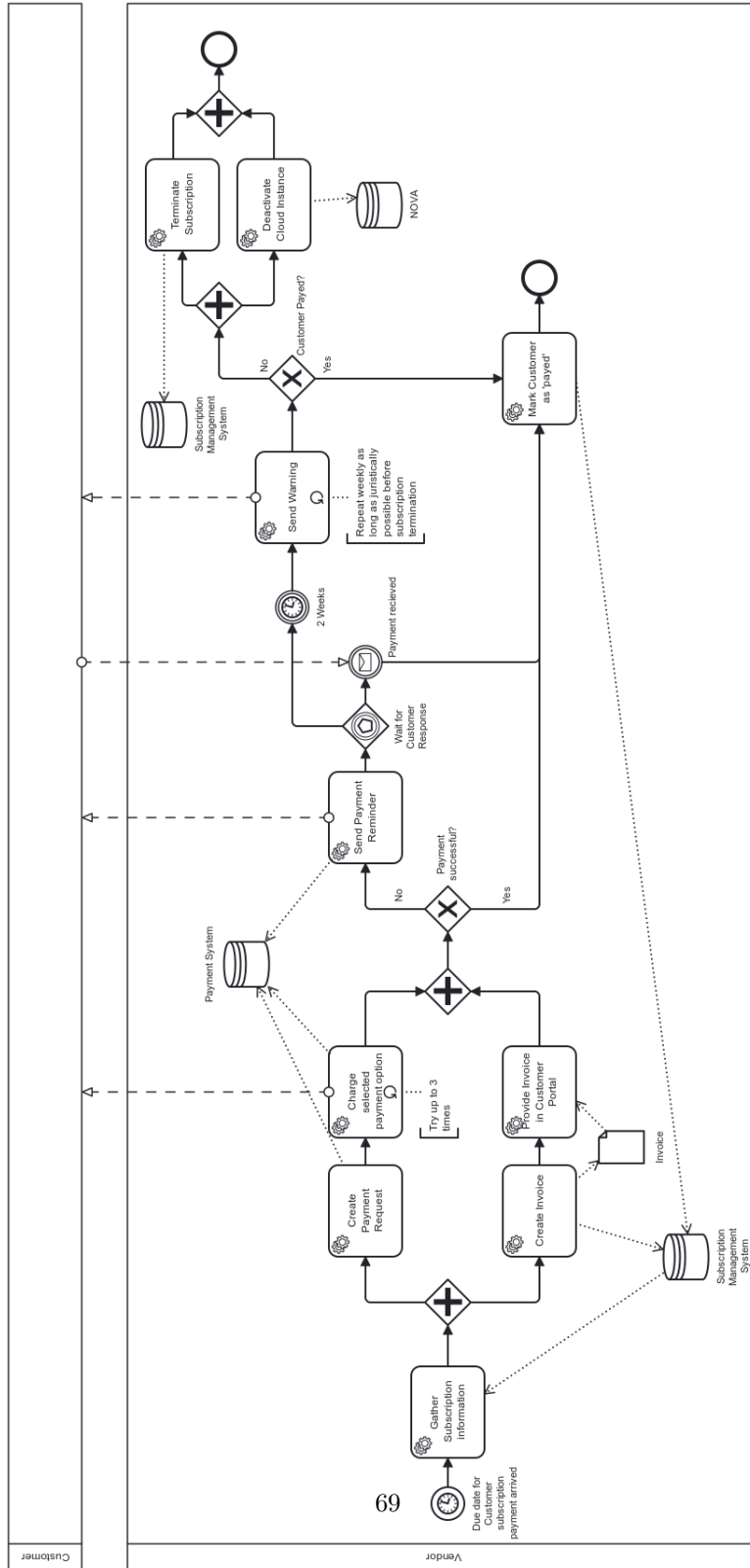


Fig. 17 Invoicing to-be BPMN process model

## 7.5 Termination

The process begins when a "Termination request received" start event is triggered. Following this, a "Show Feedback questionnaire" task is performed, which presents a questionnaire to the customer (see Figure 18).

The process then reaches a "Wait for customer action" intermediate event, indicating a pause in the process until the customer responds.

If the customer provides an answer, the "Answer received" intermediate event is triggered, leading to the "Process Questionnaire Response" task where the response is processed and recorded in the CRM system.

If the questionnaire is skipped, the process moves directly to the "Process Questionnaire Response" task without recording a response. Up to this point the actions of the leaving customer are managed in their Admin area in the application.

The process then reaches an exclusive gateway, which decides the next step based on the questionnaire response processed by the CRM.

If the response requires further action, the process moves to the "Process Termination Request" task, where the details of the termination are processed by the SMS, including setting the cloud instance for termination and stopping any future payment requests. Following the processing of the termination request, a "Send confirmation" task is executed, where a confirmation of the termination is sent to the customer.

The process then waits for the "Time of Termination arrived" intermediate timer event, indicating that the scheduled time for termination has been reached.

At this point, a parallel gateway directs the process to three parallel paths:

The "Archive Customer" task is performed, where the customer's data is archived in the CRM system.

Simultaneously, the "Delete personal Data" task is carried out to ensure the customer's personal data is removed from the system.

Another task "Stop Customer Cloud Instance" is performed in parallel, effectively terminating the customer's cloud instance as per the request.

The process converges after the parallel tasks are completed, leading to an end event, indicating the process is complete.

This process effectively autonomously handles a customer's request to terminate their service, ensuring that feedback is sought, the termination is processed, confirmed, and executed at the scheduled time, and all necessary data handling steps are taken.

## 7.6 To-be models conclusion

This to-be models chapter showed how the processes in Flexopus could look like when considering the guidelines that were discovered in the SLR. The strongest impact on the to-be processes did have the guidelines 'Automation' and 'Self Service'. It is visible that less human labor is needed to fulfill certain tasks of a process and that either the system or the customer takes on most of the tasks. Another impact on some of the processes had the guidelines 'Sales Process Optimization', 'Effective Onboarding' and 'Online Invoicing'. The impact is already clear given the names.

The guidelines as described in the SLR have been implemented with the benefits they bear (see chapter 6.3). The customer centric approach is somewhat applied in the sense that the customer is more actively integrated in the processes. Customer centricity when looking at it from a high level service perspective, is also given when looking at the Enterprise package, where a personalized contact with personal selling to high ticket customers is still necessary. 'Data-driven insights' and 'KPIs' are also part of the guidelines but not part of the models, since it is just another system in the background that collects data from the already integrated tools and systems. It can be seen as a 'meta-system'. Guidelines and challenges like 'Organizational Learning', 'Change Management' and 'Continuous Improvement' are also important to master for a successful Transformation towards SaaS but are also positioned on the meta-level and organizational level and are not integratable in the models of the process domains. As a next step for each process there has to happen a comparison of as-is and to-be processes in order to detect the differences between them and also justify why the to-be model has advantages over the as-is model under the aspect of moving towards SaaS BPs.

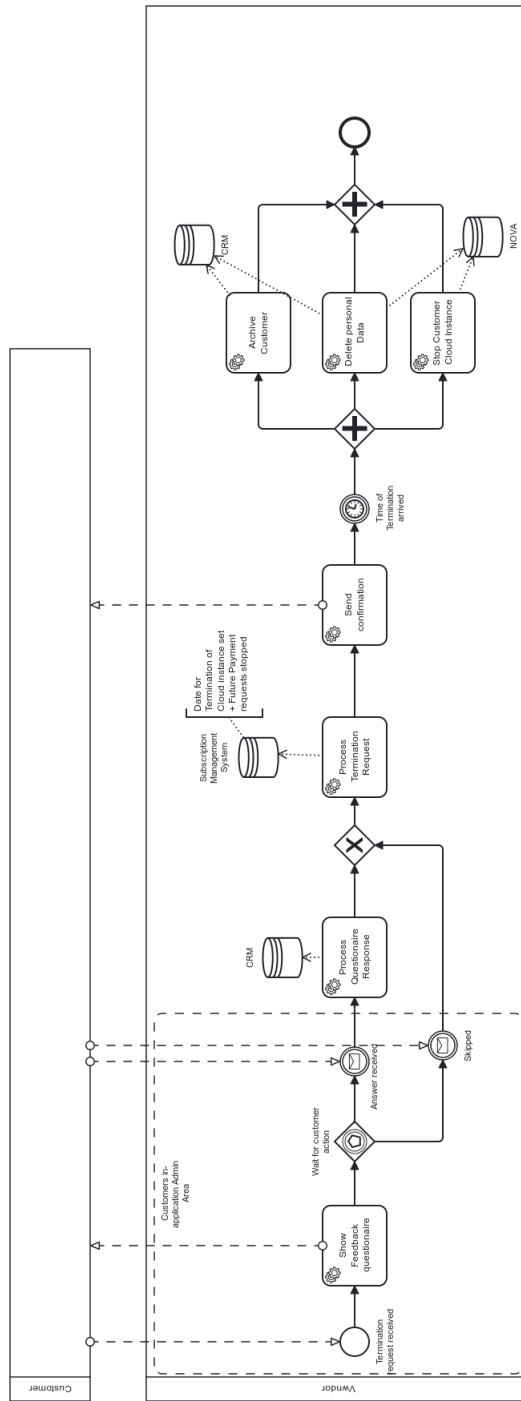


Fig. 18 Termination to-be BPMN process model

## 8 Process comparisons

This chapter embarks on a comparative exploration, scrutinising two BPMN models: the current (as-is) model, representative of a traditional software company, and the to-be model, embodying the envisioned SaaS entity. The objective is to offer insights into the realisation of this transition and its impact on pivotal organisational dimensions. The process comparison adopts a manual examination of BPMN models, with a focal point on the following core dimensions:

**Participants (Roles and Responsibilities):** The roles and responsibilities of participants within each model are meticulously examined, with attention to variances in their duties and responsibilities during the transition. Notable shifts in task allocations and the introduction of novel roles are methodically documented. It is to mention that in general in both process models there is one pool designated to the Software-Vendor (Flexopus) and one Pool for the (prospective) Customer. The Focus lies on the Lanes in the Vendor Pool.

**User Tasks vs. Service Tasks (Automation):** To gauge the extent of automation, a quantitative analysis compares user tasks, often indicative of manual actions, with service tasks, emblematic of automated processes. This quantitative contrast illuminates the progression towards automation inside the Vendor Pool. Tasks for the Customer will be elaborated on in its own aspect.

**Data Flow:** Data flow within the BPMN models is critically assessed, emphasising data objects and data associations. Alterations in data management, the inclusion of fresh data objects, and amendments to data associations offer valuable insights into evolving data handling.

**Customer Interactions with Customer Journey Mapping:** Comprehending customer interactions is facilitated through the introduction of customer journey mapping. This visual representation provides an encompassing view of the customer experience, with specific emphasis on customer touch-points and self-service capabilities in the to-be model. It also sheds light on the change in customer actions and tasks during the processes.

**Scalability and Flexibility:** An evaluation of the scalability and flexibility of both models is carried out, bringing into focus elements that contribute to or constrain these attributes. Key design choices influencing scalability and adaptability are systematically documented.

**Time and Cost Analysis:** An evaluation of the time and cost of the different processes based on accurate data from an interview held with a co-founder and executive Sales Manager of Flexopus. With these insights, cost and time savings regarding the as-is and to-be models can be estimated calculative. The interview was not recorded or transcribed. The interview notes can be found in [appendix D](#).

Additionally, different process sequences of the as-is model which are marked in the same color to signal connection or relation to each other, are compared to the to-be model and it also showcased in the same color how the specific sequences from the as-is model are executed in the new to-be model. There are four to five different colors used per model (models are shown in the following subchapters). Sometimes a color in the to-be model is missing or vice versa, indicating that the process sequence is not used anymore like in the counterpart model. The exact sequence each color represents in both models is explained before comparing the change between both models. It is always shown the as-is model before the to-be model in each chapter. Also for each color, the as-is model is described first and then it is elaborated on how the to-be model compares to that.

## 8.1 Sales

### 8.1.1 Colored sequence comparison

The Sales process starts with a blue sequence, representing the recognition of a potential Sales prospect. In the as-is process this happens with an incoming email displayed in the CRM (see Figure 19). The Sales Manager then distributes the Sales Inquiry to a Sales employee, who then has to either schedule a demo call or take a scheduled demo call, or in case of a small inquiry just send an explanation video to the Lead. In the to-be process (see Figure 20) this is different in the sense that a Sales process is initiated by a Lead already being in the process of subscribing to the application on the website through creating an account and entering payment details for fee deduction. This happens automatically in the system based on self-service input of potential new customers.

The green color in the as-is model represents the whole process of holding demo calls, sending and refining offers until a new customer is won. These practices are not the case anymore in the to-be process, therefore the color is not present. The only related part to the current way of Sales in the desired model is the use of the as-is model for Enterprise Leads, who receive personal contact points throughout the process.

Marked in yellow are marked tasks in the process that are related to documentation and collection of information. Done manually in the as-is state, this changes to the customer giving their information in different input fields and the information getting processed and saved by the system for example in the CRM and SMS.

The red colored sequences showcase any moments in the process where the Sale can actually fail and a Lead is lost (for the moment). In the as-is, this can be already the case when a demo call can not be scheduled anymore due to non reaction or when the Lead can not accept an offer even after some iterations and changes to the offer. In the tobe model the sale can stop when the Lead leaves the subscription mask on the website or the clients server times out. Additionally, when the payment fails a usage of the application is only possible when the payment gets deducted (automatically) from the new client.

Violet represents the moment when a Lead becomes a customer officially. In the as is process this is the point when a signed offer comes back to the software vendor from the new client. In the process a new client is won after they have created a valid



account and the first payment fee is received and marked as paid by the payment tool automatically.

Overall, the transition from the the current state to the desired outcome showcases a level of automation and self service in the purchasing process of potential clients where there is a synchronous behavior between interest and action, which means that theoretically an interested party can get access to the system (either subscription or test phase) within minutes and start setting up their application environment, compared to just the first step of getting in contact with the vendor and waiting for an email response explaining the next steps in the process. Additionally, also beneficial for the vendor is the automated tracking of and collection of information about the client and the autonomous management of subscription details.

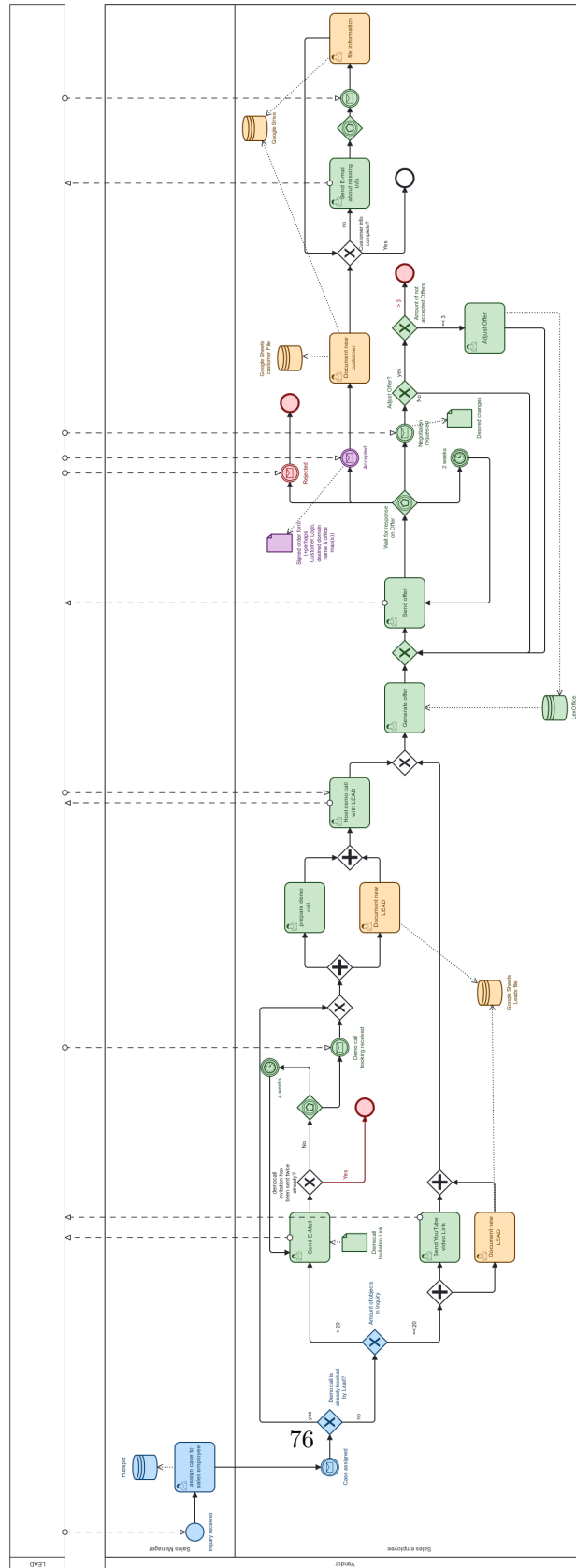


Fig. 19 Sales as-is color comparison

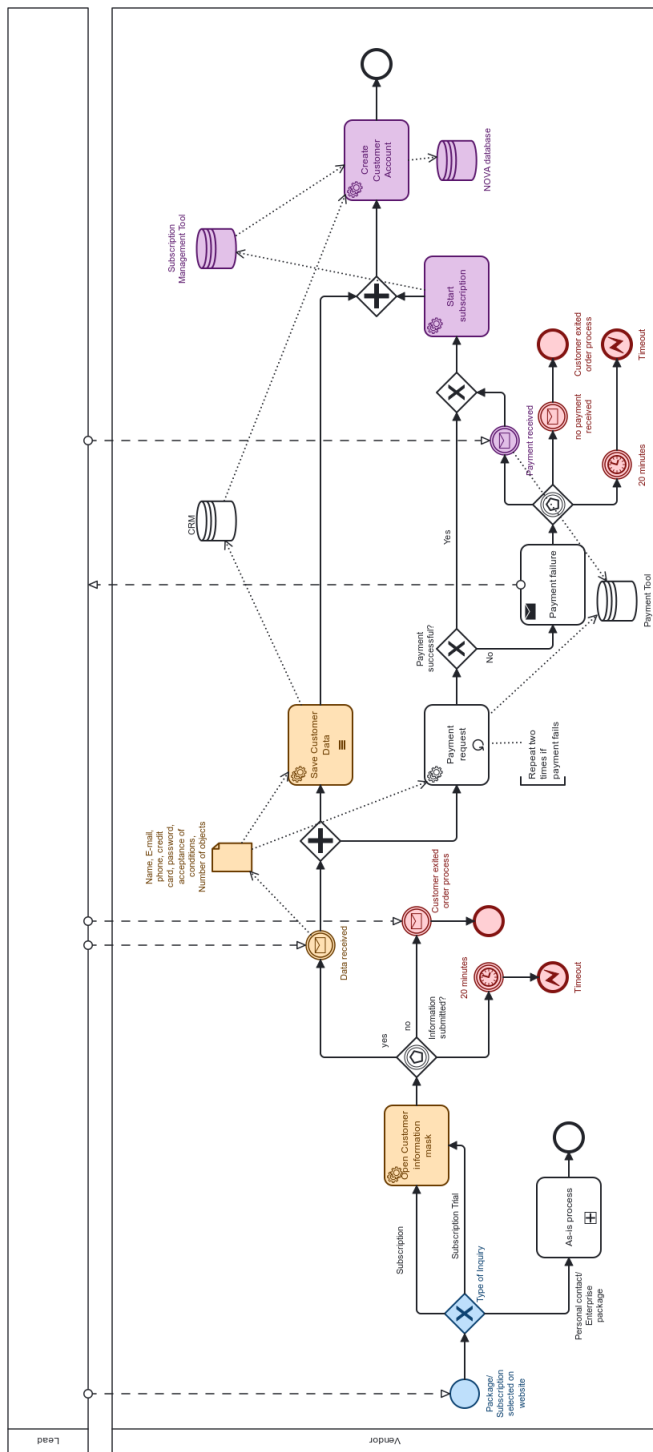


Fig. 20 Sales to-be color comparison

### **8.1.2 Participants**

For the Participants in the process it becomes clear that in the to-be model, compared to the as-is model, there are not as many participants needed. As-Is has 2 Lanes in the Vendor Pool, The Sales Manager and the Sales Employee. In the To-Be, the Vendor Pool is its own and only Lane. This is because incoming Sales Inquiries do not have to be distributed any more to a Sales employee.

### **8.1.3 User Tasks**

The As-Is process has 13 User Tasks, which are executed by a person on some kind of digital interface. Compared to that, the to-be process consists of 4 Service tasks which are enhancing the Automation aspect of the process, since no human interaction from the vendor side is necessary to complete the Sales process.

### **8.1.4 Data Flow**

The Data flow happens automatically due to interconnection between the website input mask and the the CRM system where that information will get saved. Additionally, when the created account also chooses a subscription, the SMS is connected to CRM data of the customer and maps the subscription. If a trial is selected then the connection to the payment tool is not needed, out of reasons of readability this is omitted in the model and is assumed that they pay for a subscription. If the vendor wants to save the payment info in order to start the paid plan right away after the end of trial period, then the payment tool needs to verify and save the payment information. After the subscription (or trial) is started the SMS also connects to the NOVA Database, to authorize the creation of a new clients cloud instance where the application will be hosted separately as a new instance for the clients to setup and then roll out and use.

### **8.1.5 Customer Journey**

The Customer Journey is influenced by not having to contact the Vendor in order to be able to purchase the usage rights for the software. Additionally, demo calls will not be necessary any more for companies that do not require Enterprise-level attention. Interested parties can just access the webpage, browse for information on the landing page and the FAQ and watch explanatory videos, before deciding about the packages, where prices are openly disclosed for quick price comparison and decision-making. Interested Companies can then select a package, create an account and fill in the credit card information for an automated subscription fee deduction. After that, the account is created immediately, giving prompt access to the Flexopus software system via cloud.

### **8.1.6 Scalability**

The Scalability of the to-Be Sales process is way higher than the current way, since there are only a limited number of Sales people working at the Vendor, which can only answer a limited amount of Inquiries per day. Next to being able to only host a

limited amount of Demo calls per day from Monday to Friday. This human resource could be focused on Enterprise clients that need special and timely attention for bigger deal closing. Therefore, no additional hiring of Sales Employees is necessary, while still maintaining a growth of the business.

### **8.1.7 Time & Cost Analysis**

Flexopus is signing 15 new clients on average every per month, with an average duration from first contact till the signage of the documents, of three to six months. This time span equals an investment of 30 to 40 human resource work hours. With an hourly rate of €50 this can cost between €1500 and €2000 (€1750 avg.) to sign one client, not including marketing costs for online Ads or other form of Lead acquisition. The average number of contact points between Lead and Flexopus, next to the standard contact points (Inquiry, demo call, offer signing, etc. . . ) is in the area of eight. It includes negotiations about the offer, the data security, or general questions or Inquiries. Depending on the customer (usually size and inner regulations) this number can go way up as well. Therefore, the Sales as-is process model represents the lean version of an often long-lasting process and represents a best case scenario for Flexopus. The to-be process could reduce the amount of time and money spent on customer acquisition drastically. It is important to mention that the to-be process would not be usable for the Enterprise package that Flexopus could offer. According to the Manager, a licence of 100 objects and above could be considered an Enterprise subscription with hands on customer care throughout the whole customer life cycle. Apparently, 60% of all monthly Inquiries consist of interested companies with an object need of less than 100. Selling to 9 customers per month ( $0.6 \times 15$ ) would only leave 6 Enterprise customers for personal contact (possibly qualitatively higher contact). This amounts to a total cost of the monthly Sales process of €10.500 ( $6 \times €1750$ ; without cost for potential sales automation tools or self-development). Compared to €26.250 in the as-is process ( $15 \times €1750$ ) this equals a cost reduction of 60%. Additionally, there is the possibility of attracting more customers that opt for direct subscriptions (non-Enterprise), due to the enhanced speed in starting to use the software company-wide.

## **8.2 Onboarding**

### **8.2.1 Colored sequence comparison**

The process start differs in the way that customer support does not get an email anymore by the Sales Team about a newly signed client in order to start the onboarding process. In the to-be process the onboarding process is triggered by the customer after the first payment fee was deducted. Nevertheless, the customers themselves can start the onboarding process themselves in a step by step self service manner.

Green marked sequences in the Onboarding models represent the setup part of a customers cloud instance with everything related to that besides the map creation and upload. The as-is model featured various distinct user tasks such as entering business names, domain names, uploading logos, and user onboarding steps, in order to set up the new customers cloud instance (see Figure 21). The to-be model tasks are greatly streamlined. For instance, the tasks for entering a business domain name and uploading

a business logo are now to be uploaded directly by the customer to their application instance, indicating a more efficient and self-service data entry process (see Figure 22). The orange process sequence is related to the complete creation and implementation of customer office maps. This process is still extensive in the as-is model with a lot of manual tasks and steps. The to be process represents the orange sequence implemented in the whole onboarding process that a designated admin goes through in self-service manner. Therefore the vendor has to provide the map editor for its customers and provide the infrastructure to save them in the customers cloud instance.

A special case in Onboarding is the SSO Activation which is done by the IT team in the as-is model, shown in the red sequence. In the to-be model this task is also moved to the tasks of the customers. It can be mentioned though as a side note that it could be helpful to offer support if customers get stuck at tasks that are known to be a bit more difficult.

Sending information to the customer about future steps of onboarding differs in the models from the timing. Represented in violet color, in the as-is model, where all the setup work is done for the customer by the vendor, an email is sent to the customer after the whole setup process is completed, signaling that the cloud instance can be taken over by the new clients. Contrary to the to-be model where the new customer will receive an email right after he subscribed in order to receive an invoice for example or to verify the email address and possibly start right into setting up the application by themselves.

Lastly, the QR code creation, blue color, differs in the manual work. In the as-is process Flexopus employees cut the amount of needed codes by hand from a big roll and send them via post to the customer. In the to be model, the system automatically creates them and deposits them for download in the admin section within the application.



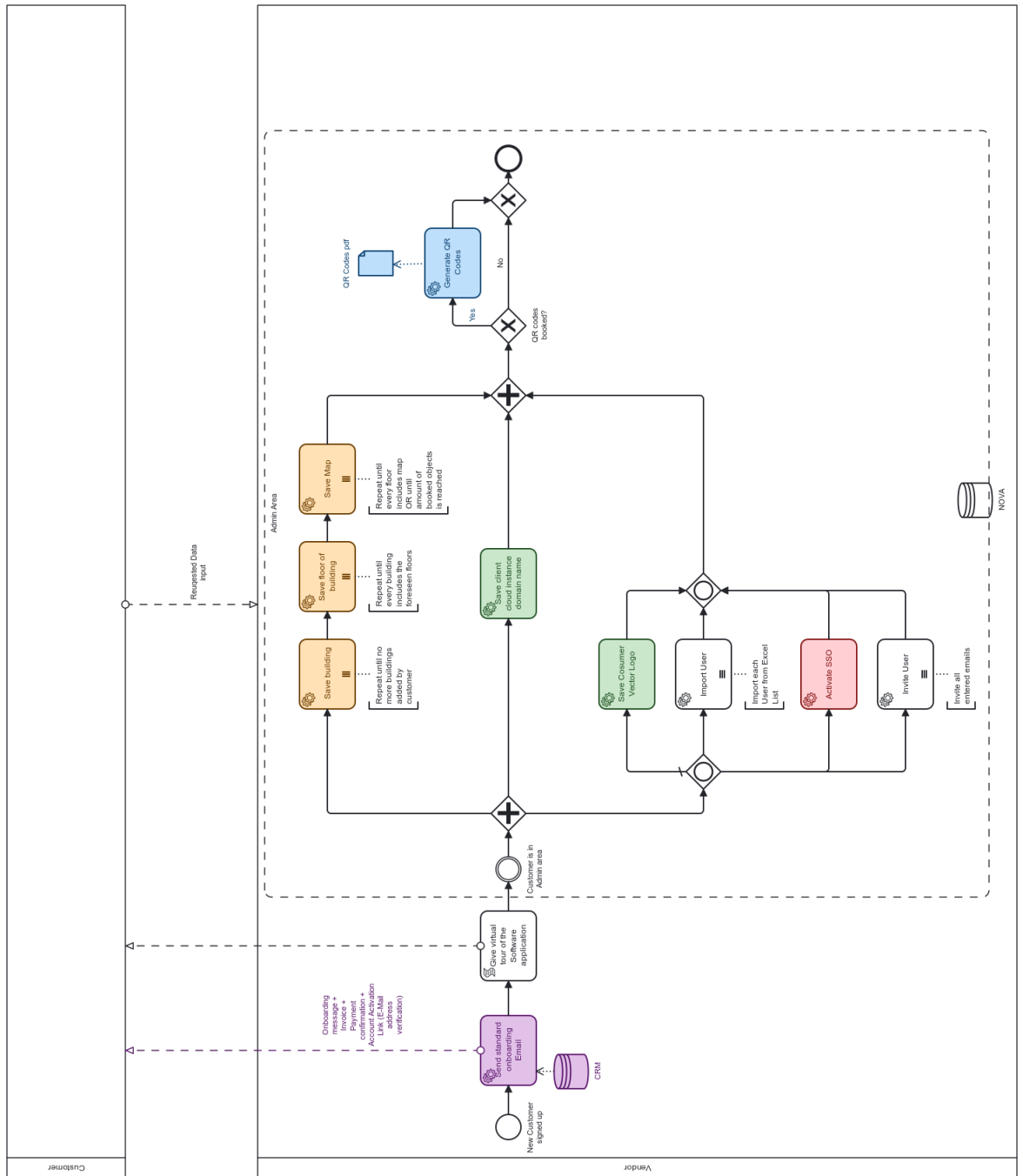


Fig. 22 Onboarding to-be color comparison



## 8.2.2 Participants

The participants in the Vendor pool for the new Onboarding process gets reduced even more compared to the new Sales process. A customer Service Employee, the Design Team, and the IT-Team are not required to actively participate any more during the process.

## 8.2.3 User Tasks

That's because in the Onboarding process, especially the introduction of Customer Self-Service plays an important role. The As-Is process features 21 user tasks, five sending tasks (one of them being the sending of a physical letter/ package including the optional QR Codes), one message receiving and processing task, and one manual task (cutting of QR Code sheets). The To-Be process on the other hand features zero user tasks or any task where a human resource is involved on the Vendor's side. Ten service tasks and one script task (giving a standardised first tour of the System to a new Customer) help to automate the process in order for it to be executed with no human interception from the Vendor side. The only point of interaction could be a big technical problem that the customer is not able to solve themselves and the Vendor has to step in, e.g. the setup of Single-Sign-On (SSO), where sometimes technical assistance is needed.

## 8.2.4 Data Flow

The data flow mainly consists of the customer uploading different files into their Systems Cloud instance via the web mask of the Application (e.g. Office Maps, Logo, Clients Lists, etc.). Compared to as-is, when Customer Service Team and design team are sending internal Map requests or finished Maps to each other via the communication channel. The only data flow to from the Vendor to the Customer are necessary Onboarding Emails which are sent automatically and tailored to the Customer (e.g. Account Activation Link with attached invoice; Or QR Codes via Email or downloadable in Customer "Portal" instead of sending cut QR Code sheets to Customer via Post).

## 8.2.5 Customer Journey

The customer journey as mentioned above is centred around a self-service Onboarding Portal, where they have to upload specific data to be able to start using the system properly. Right now, the Customer has to send in the Office site maps in human-readable format, the desired domain, and their company's vector logo. Then the Customer Service and the Design Team are doing the work by transforming the Maps into Flexopus style Maps and setting up the Cloud instance with all the given information to then hand it over to the client. The to-be process can put that work into the responsibility of the customer by giving them direct access to the Application after they signed up for a subscription or test account. By guiding them towards an Onboarding portal in the Admin area where they first have to complete certain steps, in order to be able to fully roll out the system in the company. For example, it is necessary to upload Maps into an inbuilt Map editor and drag and drop bookable objects

onto the uploaded office plans. Another option could be to fully rebuild the office Maps by themselves using the Flexopus design language. This would require more effort, but definitely has a more visually appealing touch to it. The domain name would also be a requirement in order to start. Uploading a Logo, already uploading a user list or activating SSO is not required for making the Application usable for all employees or is only possible with booked modules (SSO, QR Codes, Premium support, External Domain, etc.).

### **8.2.6 Scalability**

The Scalability and Flexibility for the to-be Onboarding process is high, since here next to the Customer Support Limitation of labour force, also the labour force of the Map design team is limited. Therefore, by giving Map creation, the most time-consuming part, into the hand of the customer, time and resources can be saved, which again can play a crucial role in attending Enterprise clients.

### **8.2.7 Time & Cost Analysis**

The Onboarding per customer consumes human resources of up to 10 hours, which equals €500. If the calculation of cost reduction also uses the 60% of new customers per month that do not require an enterprise subscription treatment, then in the to-be process this could lead to monthly costs of €3000 (6€500). Compared to the current procedure, where the monthly cost for Onboarding concludes at around €7500 (15€500). This equals a cost reduction of also 60%. On average, customers have to wait 5 -10 working days after signage of their order form and exchange of important documents, until they receive their personal company cloud instance. Then it is the client's part to fully roll out the application in their company, this can take two to four weeks on average). The rollout phase time on Flexopus' side could be reduced to zero. Costs for the development of self-service Onboarding tools, like an intuitive and user-friendly office map editor, have to be taken into account though.

## **8.3 Customer Service**

### **8.3.1 Colored sequence comparison**

In the as-is model, blue is used for initial customer interactions usually received by mail, such as inquiry handling and inquiry reading (see Figure 23). The to-be model also uses blue at the start (see Figure 24), indicating customer actions, but giving the customer their different starting point for each type of inquiry (eg. opening the map in the editor for map making map changes), simplifying the customer's initial engagement with the system and also simplifying inquiry management for the software vendor by not needing to interfere and only get special inquiries the chatbot was not able to answer. The development team will also get technical reporting tickets organized and uniformatted.

The purple tasks in the as-is model involve the process of the customer support team preparing map changes for the clients and also implementing these changes in updated or newly created maps in the customers cloud instance. In contrast, the to-be model

includes tasks that also support the creation of maps which is way less work since with a self service map editor these steps are not necessary anymore. Additionally, these helping tasks like saving map changes and updating map in the system also happen automatically/

The as-is model uses orange to delineate the customer support process, customer question and technical error reporting handling. These tasks are done by employees of the customer support team and therefore relies a lot on the knowledge of the individual employee. Orange in the to-be model, showcases a more extensive structure of an automated and self service Question and Error-Reporting process with the help of FAQ and Chatbots.

The red tasks represent the creation or adjustment of maps itself. The as-is model features red tasks in the UI/UX Design Team Lane since it is their only task in this process to create or make changes to the map and then send the finished files back to the customer support team. The to-be model uses red to highlight handling of map change requests, indicating a self service map change process, where the customer can make all the required changes by himself in an easy to use map editor.

The green color represents the documentation of map change requests. Where in the as-is model these changes are manually documented in the Google Sheets customer file in the notes section at the end of the process. The to-be process shows an automated process of documenting customer changes in their Flexopus office maps. Hereby the changes get automatically saved in the SMS for future fee payments. Also added objects are charged immediately when the customer makes all changes to their maps and finishes the process. This might seem more complex looking at the pure documentation aspect. Nevertheless, this has a big impact also for the invoicing process, since contracts and contract changes for the creation of invoices do not have to be checked and tracked back manually anymore.

Overall Process Flow: The to-be model prioritizes a smoother, more customer-centric process, with fewer decision points early in the process and a more streamlined approach to subscription management.

Error handling and feature requests are more prominently marked, indicating a focus on responsiveness and agility in addressing customer needs. In summary, the transition from the as-is to the to-be model reflects a concerted effort to streamline customer interactions, centralize subscription management, and enhance question request and error report handling.





### **8.3.2 Participants**

Compared to the as-is model with two Lanes of Customer Service (Support) and the Design Team, in the to-be model none of these teams actively participate.

### **8.3.3 User Tasks**

The as-is model includes 23 User Tasks, 5 sending tasks, and one message receiving and processing tasks. The to-be model contains again no user tasks or any tasks with human involvement on the vendor side. 13 service tasks in the to-be model make sure that the customer can add new objects to their maps by automatically adjusting the monthly subscription fee for each object that gets added to the package. And by giving them access to their own maps via an integrated map editor. Additionally, also the customer service aspect of answering customer questions and technical error reporting is handled automatically.

### **8.3.4 Data Flow**

The data flow also mainly happens between the Customer and the systems that the vendor uses. Mainly, the existing data in the database (NOVA) is accessed and alternated by the customer. Additionally, the SMS handles the changes in the amount of objects that are included in the subscription package. The payment system then creates a payment request if the amount of objects increased. Interactions with chatbots get logged in the CRM system to understand customer questions and requests better.

### **8.3.5 Customer Journey**

Just like in the onboarding process. The to-be Customer Service also sets on Self-Service of the Customer. Adding new objects and alternating existing Maps is currently also done by the design team, when ordered to by the Customer Support. The to-be path gives this responsibility into the hands of the customer, who can work on the existing maps exactly as they intend to without any greater delay. Same for customer questions and error reporting with chatbots the customers or website visitors can use (visitors are only able to get questions answered or book an appointment if they need an enterprise package).

### **8.3.6 Scalability**

The Scalability and Flexibility is also greatly improved in the to-be model, since the process is not reliant on human capacities of the Customer Support and Design Team.

### **8.3.7 Time & Cost Analysis**

Customer Service obviously takes a lot of time and effort for a company. The change of Map process can also have a cost reduction of 60% of all new customers in the future after introduction of the SaaS Process version. Following the model from above, when 60% of customers are non-Enterprise customers, the cost reduction could be accurate.

Since Flexopus already has a big customer base with existing contracts, this whole calculation might not be realistic since it will take a while to get all existing customers into the subscription standards. Most likely it is not possible, since existing clients are not eager to “downgrade” the amount of personal attention they enjoy at the moment that they are used to. Also time that is won from not having to take care of subscription customers can be reinvested for an intensive care of Enterprise customers in order to strengthen the relationship of voluminous revenue sources.

## 8.4 Invoicing

### 8.4.1 Colored sequence comparison

Upon examining the as-is and to-be BPMN models with attention to their color-coding, a transformation in the workflow is evident. In the as-is model, blue is associated with data verification tasks, such as checking contract details and customer usage and setting the customer information in a way to repeat the cycle at the next point of billing (see Figure 25). This shifts in the to-be model, where blue denotes the initial stages of the process, focusing on gathering subscription information very quickly since all subscription related actions are saved every time in the SMS, including marking customers as ‘paid’ towards the end of the process, streamlining the entry point of the billing process (see Figure 26).

Green, which in the as-is model is connected to adjusting contract details and handling invoice data, transitions in the to-be model to symbolize the creation of payment requests and the distribution of invoices through a customer portal. This suggests an enhancement in customer interaction and service delivery.

The introduction of purple in the ‘as is’ and to-be model represent a phase in the process: sending payment reminders. It shows a proactive approach in managing overdue payments, which is visually distinguished in both models.

The use of orange in both models again is particularly striking, signifying a warning action taken after a payment failure. The only difference again is the automation aspect of the to-be model.

Red tasks mark the most critical actions. In both models red is used for all the activities related to a contract or subscription termination and differ in their degree of automation between models, wherein the to be model everything happens automatically and in the as-is state everything has to be done by a human navigating the respective systems.

Overall, the to-be model presents a refined, customer-centric billing and subscription management process. It’s characterized by clearer stages of operation, a more robust automation of payment and subscription tracking processes, and decisive actions for payment failures. The blue color representing the gathering of subscription information to prepare the payment request shows the biggest difference in comparison.





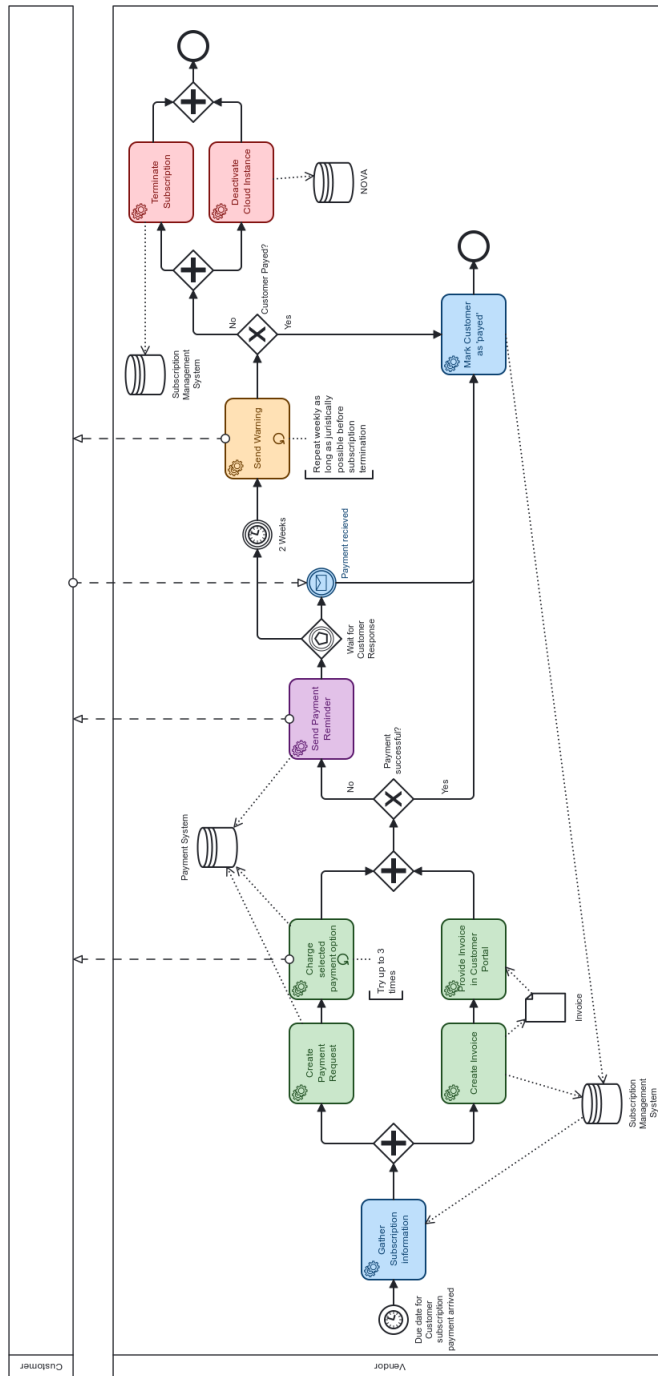


Fig. 26 Invoicing to-be color comparison

### **8.4.2 Participants**

In terms of active participants in the invoicing process, it is reduced to almost zero. In the current state, two employees of Flexopus are taking care of the monthly invoicing process. In the to-be process it happens automatically with the help of the SMS and the Payment system. Also, on the Customer side, an active payment is not needed any more. Since they have agreed on the standard procedure when signing up, to have the fee deducted from their chosen form of payment (usually business credit card). Only in cases when the payment can not be deducted (blocked or invalid credit card) they have to step in and actively step forward to pay the missing fee (e.g. add a new credit card in the payment details section of their Flexopus Admin account).

### **8.4.3 User Tasks**

The invoicing process itself, with seven User Tasks and four Message Sending Tasks, is rather small compared to the as-is processes mentioned above. Nevertheless, the to-be process, with zero User Tasks and ten Service Tasks, has no human interaction and therefore saves time and resources. This is to help with the automated payment deduction process and automated troubleshooting in the worst case scenario.

### **8.4.4 Data Flow**

The data flow is based on the SMS and the Payment tool. The SMS gathers the information about the subscription where also the fee is set in, this information is then used by the payment tool to start a payment process if this was authorized at the start of the subscription by the customer. Depending on the success of the payment the SMS gets updated with the receive of the payment and the next usage cycle (e.g. one month) is granted for the client. If payments proceed to fail, the subscription is cancelled for the customer at one point and the payment tool communicates this to the SMS and the database NOVA, where the necessary steps for the deactivation take place.

### **8.4.5 Customer Journey**

The customer journey in the to-be process is basically not existent because of the automatic fee deduction, compared to an already low customer integration in the as-is process. The customer has to pay only a new contract year once per year and maybe a repayment of too many past added objects in the past contract year. This happens in rare cases and is also avoided as much as possible by the Vendor.

### **8.4.6 Scalability**

The Scalability and Flexibility of the to-be-process is high, since the Invoicing Team only consists of two persons, which have to send multiple invoices per month and keep track of the payments. With the to-be process, there is no human involvement necessary at all.

### 8.4.7 Time & Cost Analysis

On average, the Invoicing team spends 50 hours per month in total on the whole as-is process for all customers that are due for a new yearly invoice, which equals €2500 in cost. This current process is clearly not scalable. The automation of this process (to-be) eases this for all future clients (Subscription and Enterprise). To eliminate the manual work of the process for all existing clients, the challenge would be to get all existing clients into the SMS (connected to invoicing tool). This would track all subscription changes of every customer in order to automatically create invoices (monthly or yearly is not of relevance).

## 8.5 Termination

### 8.5.1 Colored sequence comparison

Reflecting on the violet sequence, in the as-is model, it appears to represent the initial customer trigger for the termination process (see Figure 27). In contrast, the to-be model seems to initiate the process with a direct customer action within the application's admin area, shown by the 'Termination request received' task under the Vendor lane (see Figure 18). This suggests a more direct and automated initiation of the termination process, enhancing the customer's control over the service.

In the as-is model, the blue sequence depicts the initial steps involving the reception of a termination email, followed by the sending of a termination confirmation and questionnaire to the customer. There's a direct link to informing the IT administrator. In the to-be model, the blue sequence has been streamlined to show an in-application admin area where the customer receives a termination feedback questionnaire directly. This shift indicates a move towards automation and self-service, reducing the need for email communication and possibly speeding up the process.

In the as-is model, the orange sequence includes the step 'Document termination in customer doc', which is a part of the post-termination administrative tasks. This step ensures that the customer's decision to terminate the service is recorded in the company's documentation, likely for legal and service tracking purposes. In the to-be model, the orange sequence represents a more developed series of steps, starting from 'Process Termination Request' to 'Send confirmation' of the termination process. This suggests a formal process flow where the termination request is processed, integrated into the system, and then a confirmation is sent out, likely as an automated response to the customer.

The red sequence in both models represents the final steps of the termination process, involving data deletion and customer archiving. In the as-is model, the steps include, setting a reminder, and eventually deleting personal data and archiving the customer. The to-be model refines this sequence by setting a date for the termination of the cloud instance automatically, including the cessation of future payments, followed by the confirmation of termination, data deletion, and stopping the customer cloud instance. This suggests a more integrated approach to reduce the risk of errors and ensure a timely and compliant termination process.

Comparing the two models, the transition from as-is to to-be showcases a drive towards simplification, automation, and clarity in the process flow. The to-be model reduces

manual steps, integrates systems like CRM and SMS more tightly, and delineates responsibilities more clearly. This evolution reflects an effort to enhance efficiency, reduce processing time, and minimize potential errors, leading to a more streamlined termination process.

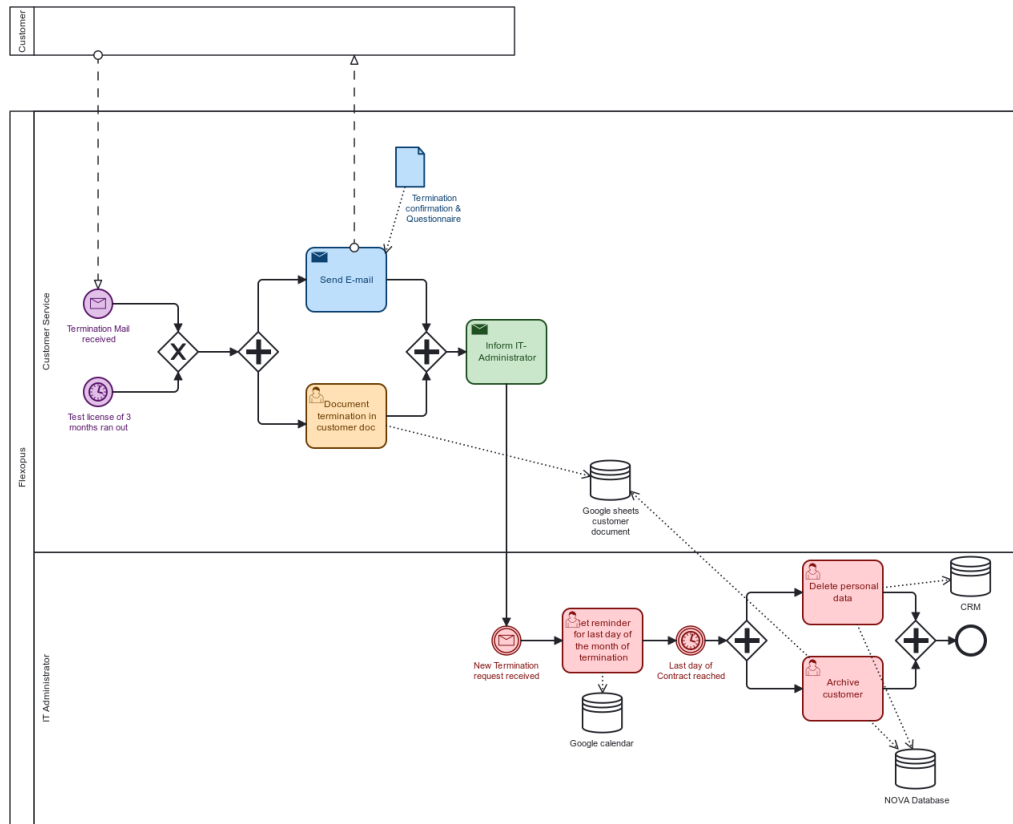


Fig. 27 Termination as-is color comparison

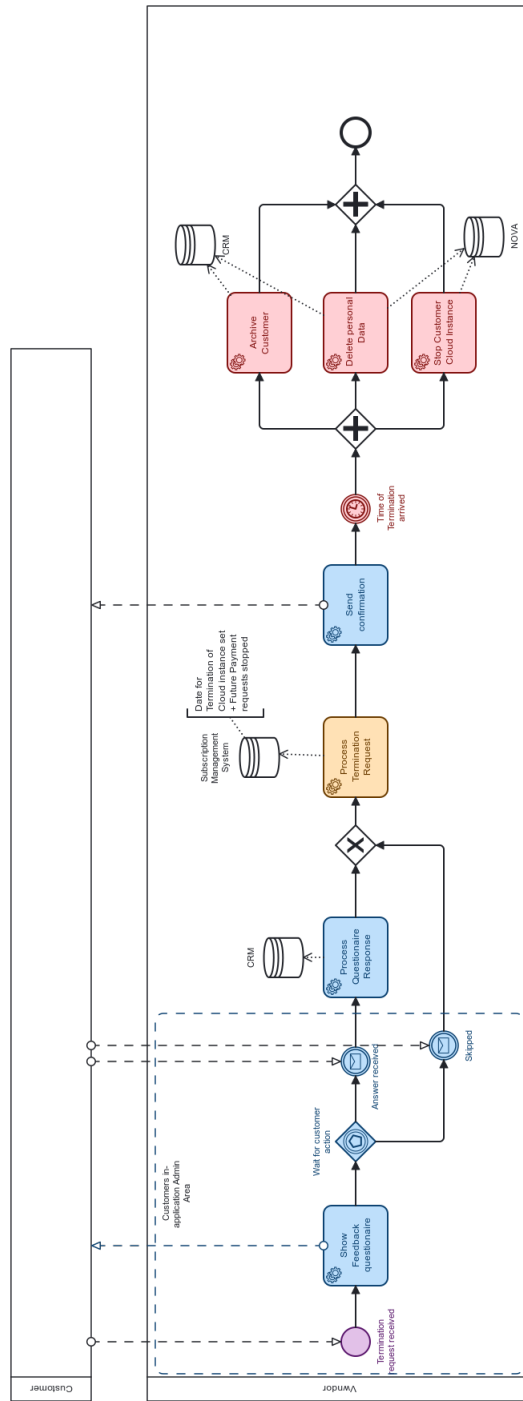


Fig. 28 Termination to-be color comparison

### **8.5.2 Participants**

As the termination process is again of smaller nature, this time the labour force of two involved participants on Vendor side can be reduced. Therefore, instead of two Lanes in the Vendor pool, it will only consist of one. Currently, the Customer support team of Flexopus is receiving e-mails about termination requests and forwards this information to the person responsible for termination. This employee schedules a reminder, usually for the last day of the month, to manually shut down the customer cloud instance. In the envisioned state, this is all done automatically after the customer requested a termination by a click of a button in the admin area.

### **8.5.3 User Tasks**

The as-is process has four user tasks and two sending tasks. The to-be process includes no user tasks, since the customer can just terminate a subscription in the admin area of the application. Therefore, seven service tasks take care of automatically collecting user feedback after receiving the termination request, sending out a confirmation to the soon-to-be ex-customer, and then finally terminating the subscription on a predefined date, including archiving specific information about the customer in the CRM, as well as deleting personal customer data in the CRM and database.

### **8.5.4 Data Flow**

The data flow is similar to the Sales process just the opposite direction. Here the application gives the information of a cancelled subscription and maps the answers of the questionnaire to the CRM profile for insights. The SMS also receives the signal of an ending subscription and sets this status for the customer. On the last day of the subscription the SMS signals the NOVA database to stop the customer instance and archive it without any personal information.

### **8.5.5 Customer Journey**

The customer journey has the same amount of steps compared in both processes, but the way of execution differs. In the as-is model, the customer has to request a Termination via E-mail and then get a Questionnaire sent by E-mail to fill out. In the to-be process, the administrator can cancel the subscription in the admin area with a click of a button and will get presented the questionnaire right away, which they can then also skip. After that, no action by the client is needed in order to stop the usage and payments of the software.

### **8.5.6 Scalability**

The Scalability and Flexibility is not that high compared to the rest of the processes. Since it usually takes only a short amount of time to deal with the shut-down of the cloud instance(s) on the last day of the month. Though, it saves a bit of time and capacity in the internal communication of Flexopus.

### 8.5.7 Time & Cost Analysis

Flexopus loses 3 to 4 customers on average per month. It is estimated that currently a manual arrangement of the termination date process and the manual termination itself takes on average 4 hours every month. This is a cost of €200, which can be omitted by introducing the self-service subscription cancellation. These costs are marginal, therefore the benefit lies in the Opportunity cost of 4 working hours (with a growing customer base the 4 hours every month could also get higher). The self-service subscription cancellation can also be made available for existing customers inside the SaaS application. It has to be considered though how openly this option/button should be showcased.

## 9 Process patterns

The following chapter showcases the identified PPs based on the process comparisons. It is emphasizing the PPs significance, benefits, the reasons for their discovery, and lists the to-be processes they are part of. The following chapter also answers *SRQ3: What process patterns arise from the Transformation of the as-is towards the to-be models?*.

### 9.1 Subscription Based Software Packages

Having subscription based software packages displayed transparently on the company website is crucial for a SaaS business. It helps customers understand pricing and features making their decision making process easier. Transparent subscription packages offer benefits. They attract informed customers, reduce sales friction and enhance the company's pricing strategy. By providing information about what customers get at each price level trust is built and the decision making process becomes simpler. Also, time costly sales meetings with lower tier subscription customers are avoided.

The need to meet customer expectations for openness and transparency in the SaaS model led to the identification of subscription packages as a key element. It was discovered that building trust and simplifying the customer journey relied on this aspect. This first PP is implemented in the Sales process (blue color) (see Figure 29, since the different subscriptions are displayed on the vendors website, where the Sales process of a potential new client usually begins.

### 9.2 Enterprise Package

Introducing an enterprise package that includes hands on work is a move aimed at serving larger clients, with complex requirements. The importance of this lies in its ability to customize solutions for clients, which could potentially lead to increased profits.

This approach benefits the company by meeting the needs of corporate customers fostering customer loyalty and potentially driving revenue growth. By combining software with assistance the enterprise package offers a comprehensive solution to clients with diverse and intricate demands.

The reason for discovering the enterprise package through hands-on work was rooted in the goal of serving a wider range of customers. It was recognized as an approach that could enhance the company's market presence and drive business growth.

Also this Enterprise package is most present in the Sales part in the models, since it is displayed next to the subscription packages as the most voluminous package regarding features. Nevertheless, the enterprise package demands a greater personal interaction with a client in all the other processes and is therefore omitted for reasons of model readability. In general, for the CLC of Enterprise package clients, the as-is models are still valid and usable. In the Sales process color brown represents this PP (see Figure 29).



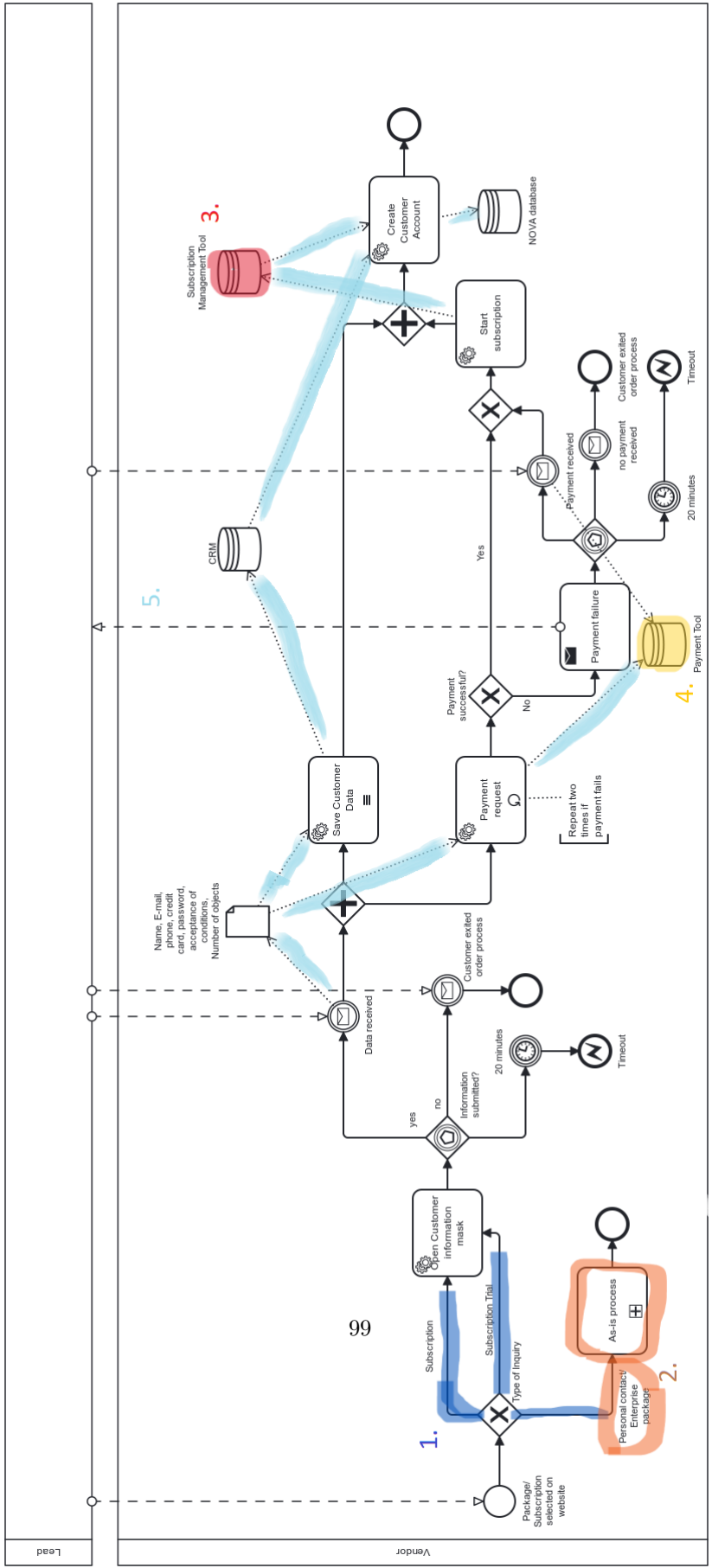


Fig. 29 colored Sales Process Pattern

### 9.3 Subscription Management System

The SMS acts as a hub for all activities related to subscriptions, such as sales, changes and terminations. Its significance lies in simplifying and centralizing subscription life cycle management. It simplifies processes that are central to the SaaS business model. This tool offers benefits, including improved operational efficiency, fewer mistakes and greater customer independence. It empowers customers to handle their subscriptions, make adjustments and oversee their journey, reducing the need for support teams and ensuring a customer experience.

The identification of the SMS as a fundamental element is driven by the goal of streamlining subscription processes and delivering a cohesive customer focused experience in the SaaS model. The fact that 'subscription' changes at Flexopus are currently documented in a Google Sheets file, leads to an extraordinary amount of work to write the new (yearly) invoices. With the company already having a lot of clients and steadily growing this amounts to immense workloads, also including the calculations for repayments when the subscription value was increased during the prior contract year. With a SMS these subscription changes by a customer get tracked automatically and seamlessly in real time, even allowing monthly payments with ease.

The SMS is visually present in most of the processes. In four out of five processes it has a crucial impact to streamline and automate processes (showcased in color red) (see in Figure 29, 31, 32 & 33). The PP is important in the Sales, Customer Service, Invoicing, and Termination to-be processes.

### 9.4 Tool for Automated Payments

The automatic payment tool plays a pivotal role in the SaaS model by streamlining the billing and payment process. It is significant because it eliminates the need for manual intervention, ensuring that subscription fees are collected promptly and accurately. This not only improves the company's financial operations but also enhances the customer experience by providing a seamless and hassle-free payment process.

The tool offers several advantages, including operational efficiency, improved cash flow, and enhanced customer satisfaction. By automating payments, it reduces the risk of payment delays and errors, ultimately benefiting the company's financial health and customer relationships. [125]

The discovery of this tool is driven by the need for financial efficiency and customer convenience during the transition to a SaaS model, where a subscription model with direct access and the possibility for monthly access is more efficient for the internal process. Recognizing its importance is a natural outcome of the desire to optimize payment processes and enhance the overall customer experience.

The automatic payment tool is also present in many processes of the CLC, automating the biggest part of initial and forth while reoccurring payments and subscription fee deductions. In three out of five processes (see Figure 29, 31 & 32, yellow color highlights the parts where the payment tool is used. Sales, Customer Service and of course Invoicing are beneficiaries of the Payment tool.

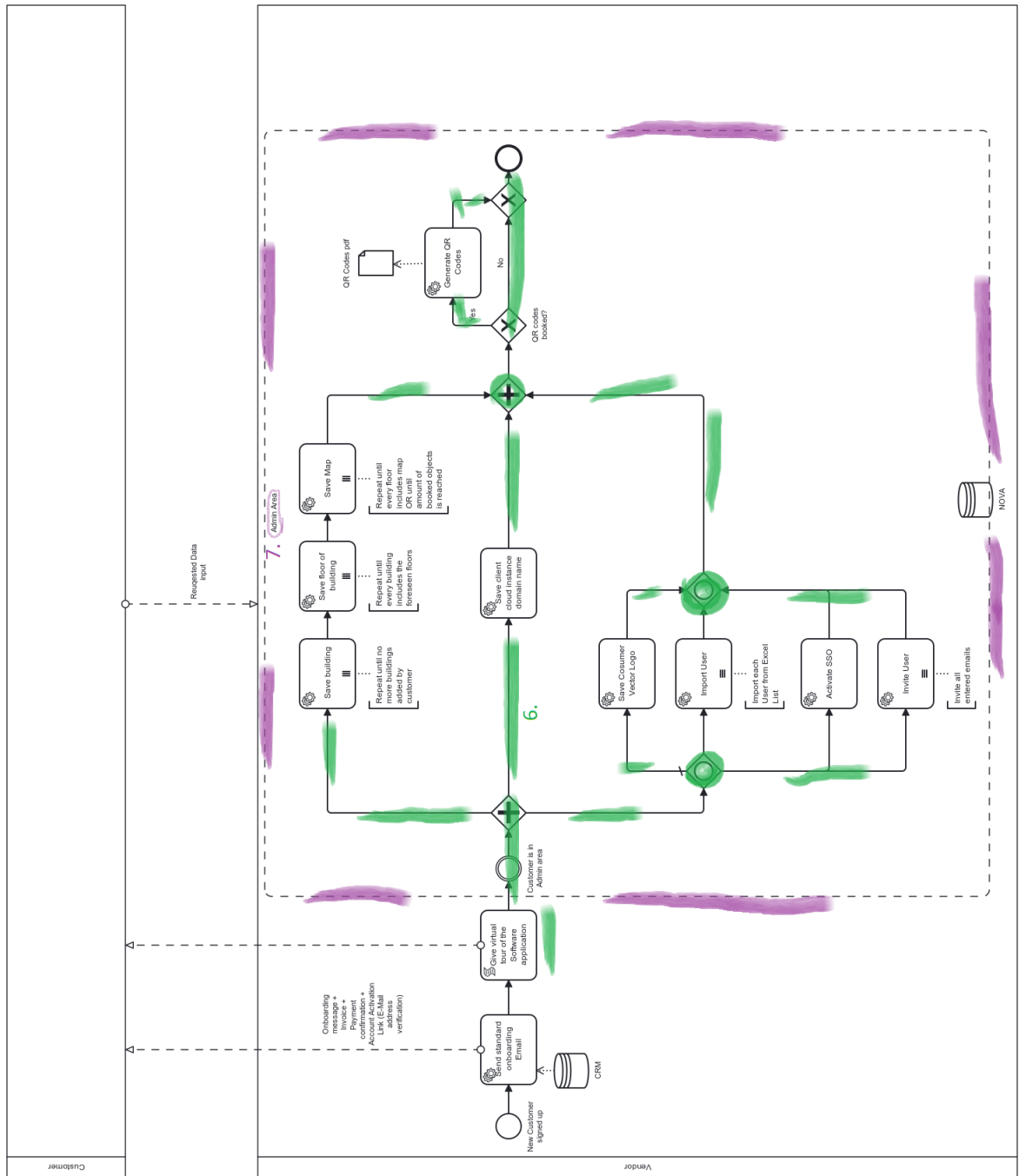


Fig. 30 colored Onboarding Process Pattern

## 9.5 Interconnection among internal and external Systems

Establishing connections between systems such as CRM, subscription management, payment tracking, databases and applications is vital for automating processes. Its significance lies in automating data flows and processes leading to improved efficiency and reduced errors.

The advantages include decreased manual work and accurate data management. By integrating systems and automating data flows the company can optimize its operations, enhance data accuracy and provide customers with an efficient experience free from errors.

The recognition of the need for system integration and data automation stems from the desire to optimize operations and improve data management in the SaaS environment. It is considered an element aimed at offering the software vendor an internal experience that is more efficient and hassle free. Interconnecting the different systems allows the desired outcome, presented by the to-be models, to a great extent in the first place.

Therefore, this PP has influence on all the domains of the CLC, since every domain has usage of some form of system to support the process. In the Sales process the connections between systems are drawn in light blue color and stand symbolically for the interconnection of the systems and tools of the vendor. Exemplary, the interconnection is only marked in the Sales process (see Figure 29), but has to be seen applicable in all other process domains and is also treated like that in a later ranking table.

## 9.6 Onboarding Area with Step by Step Self Service Process

The onboarding area, featuring a step by step self service process represents an approach that prioritizes customer satisfaction during onboarding. Its importance lies in simplifying and expediting the onboarding journey for customers ultimately improving their satisfaction and time to value.

The benefits include quicker onboarding processes, reduced effort for customers and an enhanced user experience. New customers can navigate through the onboarding process efficiently while receiving guidance at each step. This leads to a positive initial experience within the SaaS model. The reason, behind discovering this approach is to find ways to streamline and optimize customer onboarding experiences while ensuring their success. The introduction of a self service onboarding process in the designated area was motivated by the goal to streamline the onboarding experience and ensure an user friendly introduction to the SaaS environment. It is widely acknowledged as a component aimed at facilitating customers seamless transition to the new platform. As the name already suggests, this PP is present in the Onboarding process of the CLC and is highlighted with dark green color (see Figure 30).

## 9.7 Administrative Area in Customer Application

Incorporating an area within the customer application empowers customers to independently manage their subscriptions and perform various administrative tasks. Its significance lies in providing customers with a user-friendly interface for handling their accounts.

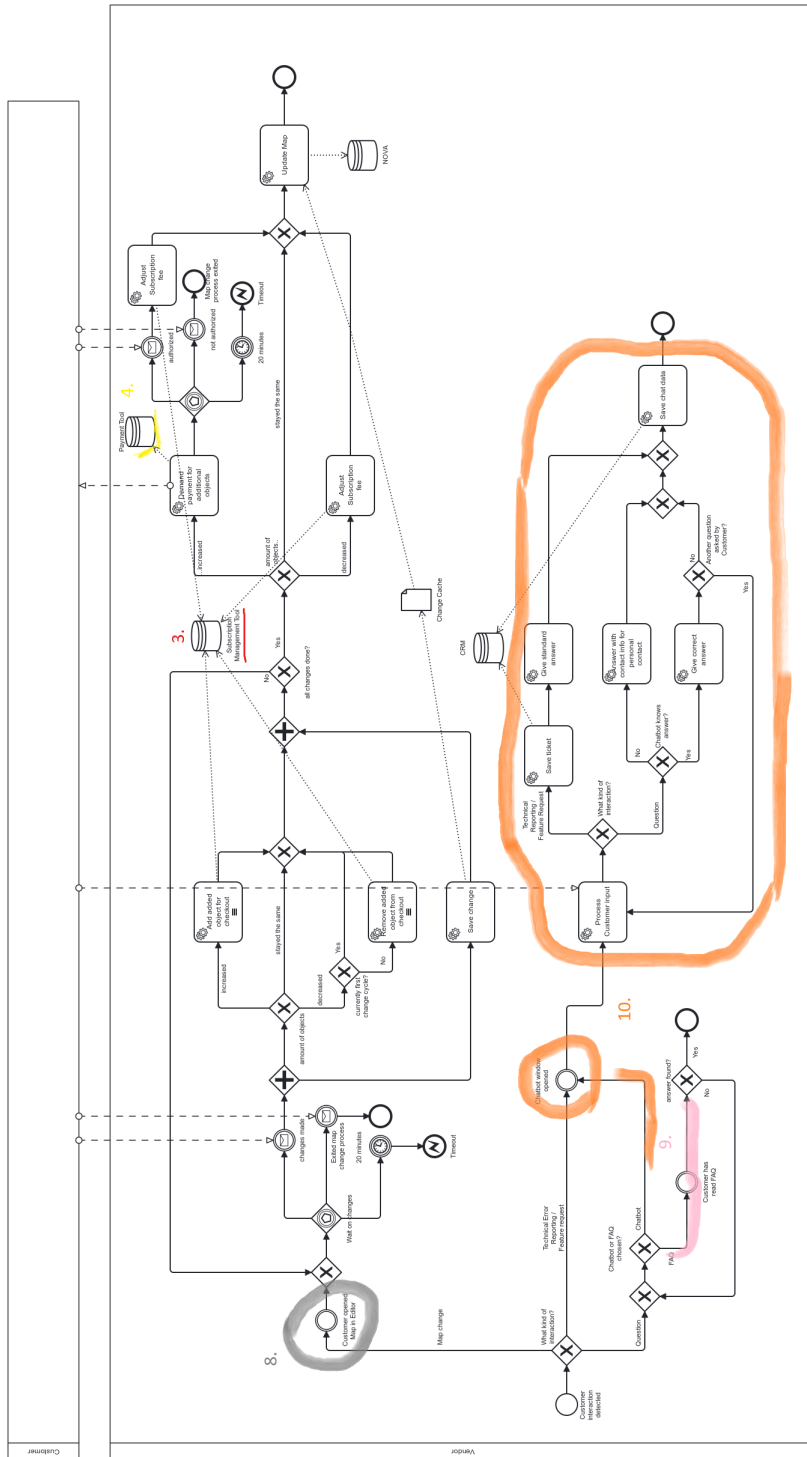


Fig. 31 colored Customer Service Process Pattern

The benefits include granting customers increased autonomy in managing their accounts and simplifying administrative responsibilities. Users have the ability to make modifications to their subscription, handle payment options and even terminate their contract directly through the application. This empowers them with control over their accounts. Reduces their reliance on customer support.

The decision to incorporate an admin area in the customer application is motivated by the goal of providing customers with a user self service platform for managing their accounts. Recognizing its importance as a component it aims to enhance customer independence and simplify usage within the SaaS model.

The administrative area plays a role for setting up the companies account in order for the system to be rolled out company wide to have also their employees use it. Therefore, the administrator needs his own section to set it up and also maintain the software if changes need to happen. Therefore this PP is present in the Onboarding process (see Figure 30) and the Termination process (see Figure 33), since the subscription can be terminated in the Admin area within the application (violet color).

## 9.8 Customer Self Service (Map Editor)

The introduction of self service customer support through a map editor represents a significant shift in how customer assistance is provided. Its importance lies in enabling customers to edit maps. Make changes on their own. This not only lightens the workload for support teams but also enhances customization options and user control.

The advantages include enhanced user satisfaction, faster issue resolution and a higher level of customer independence. Users can personalize their experience, troubleshoot problems independently. Make adjustments without relying heavily on customer support. This ensures a responsive and convenient customer service process.

The self service customer service approach is developed to make support processes more efficient and empower customers with independence and control in the SaaS environment.

As also the name intends, the customer self service, especially with the special Flexopus use case regarding the map editor, is present in the customer service process (grey color) (see Figure 31). Nevertheless, it is also used for the initial creation of maps in the onboarding process but omitted in the model due to readability (see Figure 30). The sense of self-service is also given in the last two following PPs'.

## 9.9 Development of a Comprehensive FAQ Help Section

The creation of a FAQ help section for the customer support process are valuable steps towards offering self help resources. Their importance lies in enhancing the customer experience and reducing the workload on support teams.

These initiatives bring benefits, including faster resolution of issues, fewer support inquiries and overall customer satisfaction. Customers can easily find answers to their queries in just a few minutes of navigation and searching.

The recognition of the need for self help resources is driven by the goal to empower customers with tools for finding answers and resolving problems independently. Acknowledged as an addition it aims to streamline customer support processes and

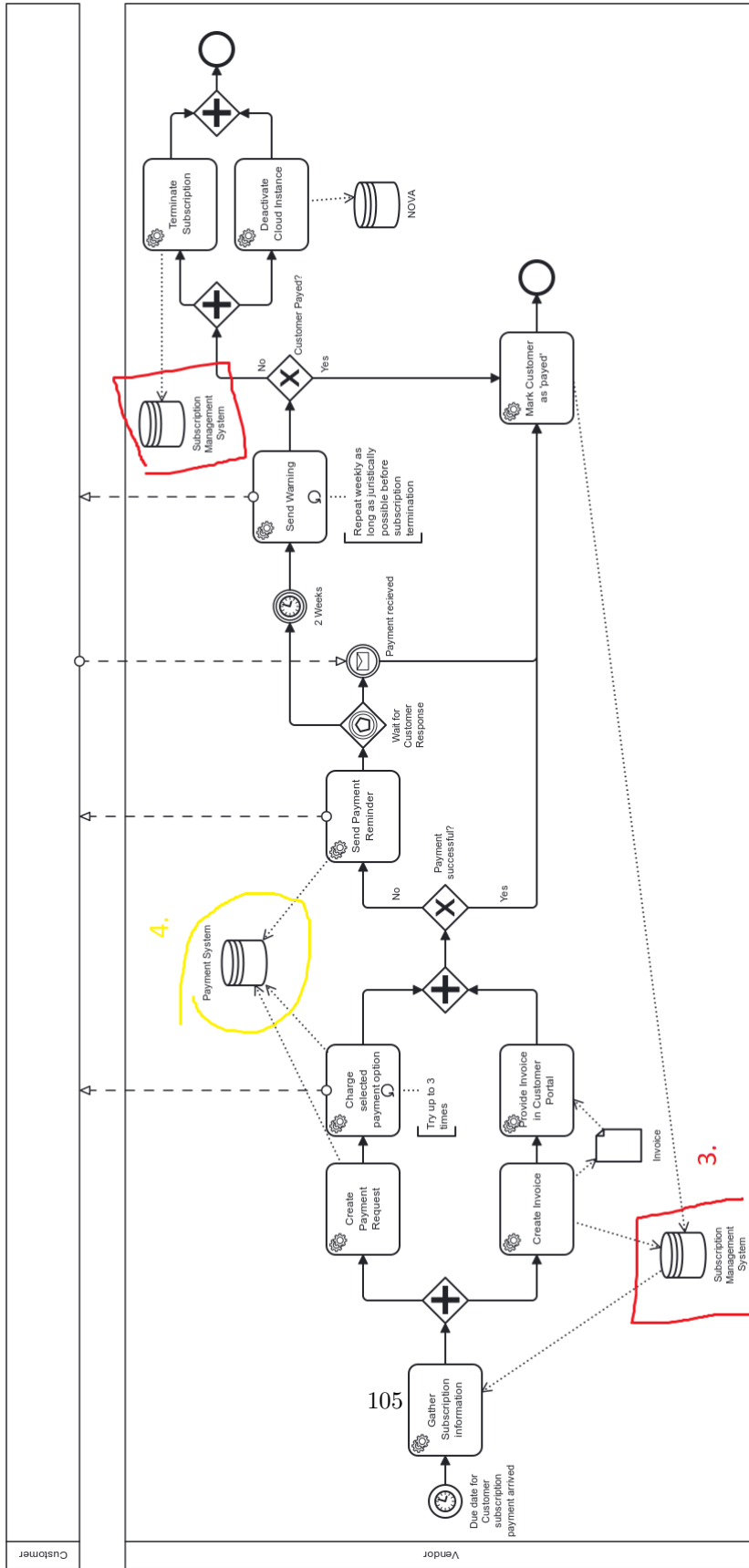


Fig. 32 colored Invoicing Process Pattern

deliver a more informative and efficient customer service experience. The FAQ PP is part of the customer service process and marked in a pink color (see Figure 31).

### 9.10 Development of a chatbot

the integration of chatbots into the customer support process either on the companies website or in the actual application, are valuable steps towards offering self help resources. Their importance lies in enhancing the customer experience and reducing the workload on support teams.

To receive round the clock assistance through chatbots and enjoy a more responsive and informative customer service experience, gives the advantage of faster and more precise question or problem solving. Additionally, chatbots also offer the possibility to collect chats and analyse in a systematic manner, which topics are unclear for customer and need refining on the website or in the application. Also the collection of error reporting and the following ticket creation for the System-Developers can be streamlined and automated through chatbot customer inputs.

Like the FAQ section, the chatbot (orange color) is mainly important for customer service processes (see Figure 31). The advantage of a chatbot, next to faster and tailored answer giving, is that it can be placed or be present for the customer at all times, so that a navigation to an FAQ page is not necessary anymore.

### 9.11 Process Pattern Conclusion

These PPs were integrated into the transition from a SaaS to a SaaS model on the example of Flexopus, due to their crucial role, in delivering a seamless customer centric experience. Their inclusion enhances internal efficiency and ensures the success of the SaaS business model in the operational context of the software vendor.

In general, if the different PPs' are to be ranked, the top 3 and therefore the most prominent PPs' due to their numerous appearances throughout the domains are the patterns: Subscription Management System (4 times), Payment Tool (3 times), and Interconnection between Tools & Systems (5 times) (see Table 9.11). Followed by the rest of the other seven patterns with no remarkable prioritization, but still with importance considering the whole BT from SaaS to SaaS. In order to validate these findings and also have a ranking of all the ten PPs, semi-structured industry expert validation interviews are conducted to find out about the thoughts and assessments of the PPs' from experienced experts.



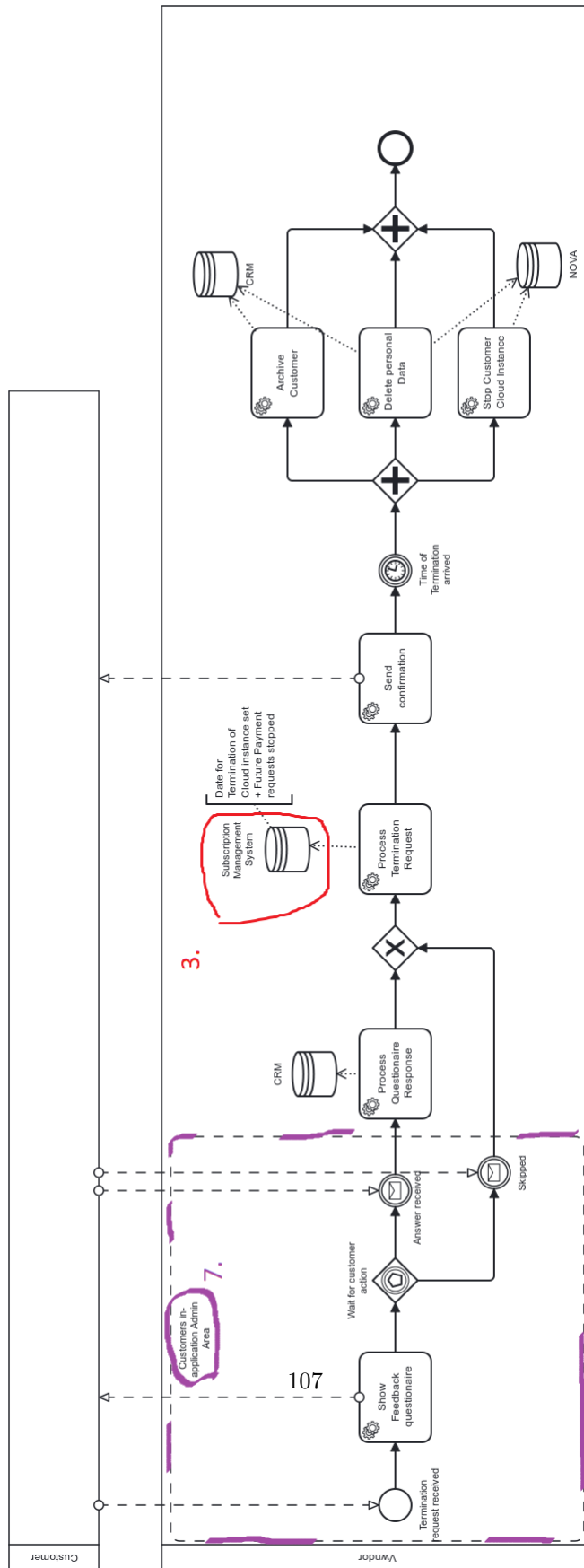


Fig. 33 colored Termination Process Pattern

Process pattern in to-be models overview <a href="#">9.11</a>		
Process Pattern	part of	Total
1 Subscription Packages	Sales	1
2 Enterprise Package	Sales	1
3 Subscription Management System	Sales, Customer Service, Invoicing, Termination	4
4 Automatic Payment tool	Sales, Customer Service, Invoicing	3
5 System & Tool Interconnection	Sales, Onboarding, Customer Service, Invoicing, Termination	5
6 Onboarding area	Onboarding	1
7 Admin area	Onboarding, Termination	2
8 Customer Self Service	Customer Service, Sales	2
9 FAQ section	Customer Service	1
10 Chatbot	Customer Service	1

## 10 Validation Interviews

In order to validate the PP and also do a ranking between them, it is important to validate them with the help of professional expertise. To achieve this, expert interviews are set up for the artefact validation part in Wieringas' Design Cycle [1]. As a first step a semi-structured interview question catalogue is written, that consists of an introduction part showcasing the general research, important terms like SaaS and SaaP, and also gives the interviewee an impression of what an exemplary SaaP company's BPs look like. The second part of the question catalogue is about the participating experts and their experience with SaaS and SaaP. They are also asked about their software company or consultancy firm.

The third part of the interview proceeds with the main part, the questions about the PP. It is explained that the PP are presented with an explanation by the interviewer and following, the interviewee should give a rating of the PPs' importance for a Transformation from SaaS to SaaP BPs on a scale from 1 to 7 (1 = not important at all; 7 = very important). The responses are ranked by calculating the average mean for each of the ten PP.

The seven step scale represents a Likert scale as it is widely used in research. The 7-point Likert scale is a well-established tool in research methodology, particularly suitable for assessing opinions or attitudes. It allows respondents to express their level of agreement or disagreement on a continuum, providing a nuanced understanding of their perspectives. [126]

The choice of a 7-point scale is grounded in its ability to capture a wide spectrum of responses, enabling more precise differentiation in opinions than simpler scales. Research has shown that such scales are effective in reducing response bias and improving the reliability of data. For instance, a study by Dawes (2008) found that the number of scale points can impact the characteristics of collected data, thereby influencing the mean scores and measures of dispersion and shape, which supports the selection of a 7-point scale for detailed assessments. [127]

The ratings obtained from this scale will be integral to the analysis, helping in the identification of key trends and insights from the expert responses. The scale allows for a detailed examination of the different degrees of importance attributed to each statement, thereby facilitating a comprehensive understanding of expert opinions in this study. To achieve this, the mean of the ratings for each statement is calculated. The use of mean is particularly relevant in this context as it provides a central tendency of the responses, offering an easy and interpretable summary of the collective opinion of the experts.

The mean is a widely accepted statistical measure for analyzing Likert scale data, especially when the scale points are assumed to be equidistant. While Likert scale data are essentially ordinal, many researchers treat them as interval data under the assumption that the intervals between the scale points represent equal increments of the attribute being measured [126]. This approach allows for the use of parametric methods, including the calculation of means, to derive insights from the data. Studies have shown that the mean can be a robust measure for central tendency in Likert scale analyses, provided the data are reasonably symmetric and not heavily skewed [127]. Therefore, by using the mean of the ratings, the statements can effectively be ranked

based on their perceived importance, as indicated by the experts. This method simplifies the interpretation and facilitates the comparison of different statements within the survey.

After the main part of the interview. The interviewee has the chance to still name some PP that are helpful for this BT (excluding the technical pattern of bringing the whole application into the cloud and ensuring its data security).

After that the expert also can give his predictions or any thoughts on the future development of the SaaS industry.

To find suitable experts, a LinkedIn search in the 'Sales Navigator' is conducted with the goal to find BP Manager, Digital Transformation Manager, or BT Consultants in the Software sector. Additionally, also SaaS company owners were targeted.

If it possible to message them directly then a message is sent out that introduces the research and also invites them to participate in the expert interview. If experts responded positively, an online meeting via video call is scheduled. A few days before the appointment, the question catalogue is sent to the expert in order for them to familiarize themselves with the topic and questions.

In the beginning of the interview, the experts are asked for permission to record the conversation. They are also notified that they are going to be anonymised in the Master Thesis text itself. If granted, the recording is started and then saved on the local computer. After that, the conversation is transcribed and the data is extracted manually.

For this thesis, six interviews were conducted. The average time of recorded conversation is 55 minutes. The total amount of recorded minutes is 327 minutes and 30 seconds (equals 5 hours and 27 minutes). The shortest interview was 30 minutes 29 seconds. The longest interview went on for one hour and 25 minutes. The collection of experts consisted of three SaaS company executives (Expert 1, 3 and 4) and 3 BT or DT consultants (Expert 2, 5 & 6). All the transcripts of the interviews can be found in the appendix [E](#) ordered from expert 1 to expert 6.

The results of the expert interviews are presented in the forthfollowing chapter.

## 11 Results

### 11.1 Process Pattern 1: Subscription-Based Software Packages

The first PP involves experts' opinions on Subscription-Based Software Packages in SaaS. The focus was on the significance of transparent pricing, tailored solutions, and the challenges in implementing these aspects across various customer tiers and product complexities.

The first PP got an average rating of 5.84 out of 7, which makes PP1 already an important PP for the BT.

Expert Insights:

- Expert 1 emphasized the importance of transparent pricing and tailored solutions for different customer tiers, including enterprise packages with a salesperson.
- Expert 2 stressed the importance of transparency in pricing but noted the challenges for complex software solutions to offer one-off pricing, mentioning that many companies avoid transparent pricing to maximize income.
- Expert 3 mentioned that the importance of subscription-based packages varies depending on the product, customer value, and market size, noting that it's less critical for larger deal sizes.
- Expert 4 saw automation in subscription packages as essential, especially for scaling up, though manual intervention remains necessary for certain customer inquiries.
- Expert 5 emphasized understanding customer needs and the nature of the product, stating that transparency is essential but not always feasible due to product complexity or customer confusion.
- Expert 6 rated subscription-based packages as essential for transparency in pricing and features, crucial for competitiveness in the SaaS model.

The experts collectively recognized the critical role of subscription-based software packages in the SaaS model, underscoring the need for transparency and customer-centric solutions. While Experts 1, 5, and 6 emphasized the necessity of transparency and understanding customer needs, Expert 2 pointed out the practical challenges in implementing transparent pricing for complex solutions. Expert 3 provided a nuanced view, suggesting that the importance of subscription packages varies with the scale of the deal. Expert 4 highlighted the role of automation in these packages but also the continued need for manual customer engagement.

This reveals a shared understanding of the value of subscription-based models in enhancing competitiveness and customer satisfaction, while also highlighting the complexities and strategic considerations involved in their implementation across different customer segments and product types.

### 11.2 Process Pattern 2: Enterprise Packages

The second PP focuses on the varying perspectives regarding the implementation of enterprise packages with hands-on work in SaaS. Experts shared their views on the necessity and extent of personalized services based on company size, customer needs,

and the complexity of the software.

The pattern was rated on average 5.34 and can also be considered as important for the BT.

#### Expert Insights

- Expert 1 stressed the necessity of flexible offerings tailored to company size and individual customer needs.
- Expert 2 considered personalized service crucial for larger clients, adding significant value, while suggesting that smaller deals might not require such an approach.
- Expert 3 viewed this approach as essential for larger clients, indicating a variable importance based on deal size.
- Expert 4 believed the importance of this pattern depends on the software's complexity and customer needs, especially relevant for complex software with high pricing.
- Expert 5 recommended personalized touch points throughout the customer journey, particularly for businesses aiming for long-term growth and relationships.
- Expert 6 rated it critical for larger customers requiring personalized service and support.

The consensus among the experts underscores the importance of enterprise packages with hands-on work, particularly for larger clients or complex software solutions. Experts 2, 3, and 6 specifically highlighted its criticality for larger customers, emphasizing the added value of personalized services. In contrast, Experts 1 and 4 suggested a more nuanced approach, considering company size, deal value, and software complexity. Expert 5's perspective aligns with a long-term strategic approach, focusing on building lasting customer relationships.

The experts have a shared understanding of the value of tailored services in enterprise packages, while also highlighting differing opinions on its applicability across various customer segments and software complexities. The insights collectively suggest a trend towards more customized, client-centric approaches in SaaS, particularly for high-value or complex solutions.

### 11.3 Process Pattern 3: Subscription Management Systems

PP3 delves into experts' perspectives on the role of SMS in SaaS. There was a strong focus on operational efficiency, error-free management of customer subscriptions, and the balance between automation and maintaining customer feedback channels.

The rating of this pattern is very high compared to the other patterns. With a score of 6.5 out of 7, pattern 3 is in the top 3 of the most important pattern for the BT.

#### Expert Insights

- Expert 1 highlighted its crucial role for operational efficiency and the importance of support teams for issues, emphasizing the tool's centrality in managing customer subscriptions.

- Expert 2 viewed the tool as indispensable for efficiently managing customer subscriptions and emphasized the need for automation to reduce administrative tasks.
- Expert 3 regarded it as crucial for efficient and error-free management of subscriptions, emphasizing its significance across company sizes and stages.
- Expert 4 noted its importance for managing various subscription-related activities and highlighted its effective use in centralizing sales changes, terminations, and payments
- Expert 5 considered it a central hub for managing subscription activities, crucial for operational efficiency and customer convenience
- Expert 6 rated the tool as valuable but pointed out the risk of losing customer feedback opportunities, particularly during cancellations

A strong consensus emerged among the experts on the essential role of SMSes in SaaS. Experts 1, 2, 3, 4, and 5 unanimously emphasized its indispensability for operational efficiency, automation, and centralized management of subscription-related activities. They highlighted how these tools enhance efficiency and customer convenience while reducing administrative burdens.

Expert 6, however, introduced a unique perspective, acknowledging the tool's value but cautioning against potential drawbacks, such as the loss of direct customer feedback during critical moments like cancellations. This insight presents a notable contrast to the other experts' views, suggesting a need for a balanced approach in subscription management that combines efficiency with customer engagement.

In summary, while there's a clear recognition of the tool's importance in streamlining SaaS operations, there's also an underlying acknowledgement of the need to maintain customer relationships and feedback mechanisms, as indicated by Expert 6's contrasting view.

#### **11.4 Process Pattern 4: Automatic Payment Tool**

The fourth PP explores experts' views on the Automatic Payment Tool in SaaS. There was a focus on the tool's necessity for seamless billing, payment processing, and accommodating various customer preferences and policies.

The rating of pattern number 4 has the highest rating achieved in this interview series. A 6.67 out of 7 is very high in this context and therefore one of the most important PPs.

##### **Expert Insights**

- Expert 1 viewed the automatic payment tool as necessary for seamless billing and payment processing, highlighting the benefits of automation in reducing manual labor and errors.
- Expert 2 advocated for seamless online payment methods, emphasizing efficiency and financial security.
- Expert 3 considered the tool vital for small-scale transactions but less practical for larger deals where direct invoicing is preferred.

- Expert 4 noted its importance varies based on the frequency of payments, while it streamlines the billing process, it incurs some costs.
- Expert 5 highlighted the tool’s essential role in providing diverse payment options like wire transfers to accommodate different customer preferences and policies.
- Expert 6 rated it important for the ease of payment processing and enhancing customer convenience.

The experts uniformly recognized the importance of the Automatic Payment Tool in the SaaS context, primarily for its role in streamlining billing and payment processes. While Experts 1, 2, 5, and 6 focused on its efficiency and customer convenience, Expert 3 presented a divergent view, suggesting its limited practicality for larger transactions that favor direct invoicing. Expert 4 provided a nuanced perspective, acknowledging the tool’s benefits in streamlining billing but also noting the associated costs.

The insights collectively suggest a trend towards integrating flexible and efficient payment solutions in SaaS, catering to a diverse range of customer needs and transaction sizes.

## 11.5 Process Pattern 5: Interconnection Between Systems and Tools

PP number five delves into the significance of integrating various systems and tools in SaaS. Experts emphasized the importance of this integration for operational efficiency, data collection, insight generation, and accommodating company sizes and stages.

The same rating like pattern 4 applies also to this pattern, 6.67. Therefore, this also belongs to the most important ones.

### Expert Insights

- Expert 1 recognized the significance of integrating systems like CRM, subscription management, and payment tools for operational efficiency, initially deferring but later acknowledging its importance.
- Expert 2 highlighted the importance of integration for operational efficiency, data collection, and insight generation, stressing its value in the SaaS model.
- Expert 3 noted that integration is important for operational efficiency, but the priority may vary based on the company’s stage and size.
- Expert 4 saw the integration as valuable for automating processes and reducing manual tasks but did not consider it a mandatory component.
- Expert 5 stated that integration, particularly of systems like CRM and databases, is critical, especially for larger companies. She also suggested focusing on quality export options for companies without ERP systems.
- Expert 6 rated the integration as crucial for operational efficiency and ensuring smooth data flow between different software platforms.

The experts uniformly acknowledged the critical role of interconnection between systems and tools in SaaS for enhancing operational efficiency. While Experts 2, 3, 5, and 6 emphasized its indispensable role in streamlining processes and data flow, Expert 1’s perspective evolved, initially deferring but ultimately recognizing its significance.



Expert 4 offered a unique viewpoint, acknowledging its benefits in automation but not considering it a mandatory aspect of SaaS operations.

The experts share an understanding of the value of system integration in improving operational efficiency and insights, while also highlighting the nuances in its implementation and prioritization, especially in relation to company size and the specific systems involved. The collective insights suggest a trend towards more integrated and efficient operational models in SaaS, particularly for larger and more complex organizations.

## 11.6 Process Pattern 6: Onboarding Area in SaaS Application

The sixth PP explores the perspectives of experts on the onboarding area in SaaS applications. This focus includes the necessity and implementation of guided onboarding processes, with considerations for software complexity, customer segments, and the importance of additional customer support.

PP six was rated 5.67, still showing its importance for a SaaS BT.

### Expert Insights

- Expert 1 emphasized the need for clear, step-by-step documentation in the onboarding process to facilitate ease of use and reduce customer support queries.
- Expert 2 recommended a guided onboarding process for non-enterprise customers, allowing them to set up independently, signifying the importance of self-sufficiency in the onboarding process.
- Expert 3 rated the need for guided onboarding as variable, depending on the software's complexity; it's more critical for complex tools while standard tools might not require it.
- Expert 4 considered the onboarding area less critical as it's a post-purchase process, suggesting customer support can intervene if needed, which implies a less proactive approach to onboarding.
- Expert 5 advised that while a guided onboarding process is valuable, it should be complemented by strong support teams and additional services like paid training to enhance the customer experience.
- Expert 6 considered the onboarding area important but noted that its necessity depends on service complexity and customer base size.

The consensus among experts underscores the importance of an effective onboarding process in SaaS applications, particularly for enhancing user experience and reducing the reliance on customer support. While Experts 2 and 5 emphasized the value of independence and additional support in the onboarding process, Expert 3 provided a more nuanced view, linking the need for guided onboarding to the complexity of the software. Expert 1 highlighted the role of clear documentation in easing the onboarding process.

In contrast, Expert 4's perspective suggests a more reactive approach, relying on customer support to address onboarding challenges. Expert 6's insight aligns with the notion that the approach to onboarding should be tailored based on the software complexity and customer demographics.

## 11.7 Process Pattern 7: Customer Admin Area in SaaS Application

PP7 addresses the role and functionality of the customer admin area in SaaS applications. Experts discussed its significance in empowering customers to manage their own subscription details, with considerations for operational efficiency and varying needs based on company size and product complexity.

The rating for this pattern is 5.5, which is on the lower end compared to the patterns but can still be considered important.

### Expert Insights

- Expert 1 highlighted the efficiency of allowing customers to manage their own subscription details, reducing operational costs.
- Expert 2 considered it crucial to enable customers to manage their subscription details independently.
- Expert 3 deemed it essential for giving customers control over their subscriptions, though the approach may differ based on the product.
- Expert 4 viewed its importance as moderate, dependent on how frequently subscription details change, and not a high priority due to less frequent changes.
- Expert 5 saw this feature as useful, particularly for larger or complex enterprises, but not essential for all types of users.
- Expert 6 rated it essential for managing different user roles and access within an organization.

The experts generally agreed on the value of a customer admin area in SaaS applications, highlighting its role in enhancing customer autonomy and operational efficiency. Experts 2, 3, and 6 emphasized its crucial nature, particularly for managing diverse user roles and providing control over subscriptions. In contrast, Expert 4 offered a more nuanced view, suggesting its importance varies with the frequency of subscription changes, indicating it's not always a high-priority feature.

Expert 5 provided a targeted perspective, noting its utility especially for larger or complex enterprises, while implying it may not be necessary for all user types. This points to a strategic consideration of user demographics and business scales in implementing such features.

Overall, this underscores a trend towards empowering customers through self-management tools, while also recognizing that the necessity and implementation of such features may vary based on the specific context of the SaaS application, its user base, and the complexity of the services offered.

## 11.8 Process Pattern 8: Self-Service Customer Service

The eighth PP focuses on the role and implementation of self-service customer service in SaaS. Experts shared their views on its impact on customer independence, operational efficiency, and the balance between automation and maintaining customer feedback.

Also pattern 8 was rated with a 5.5, which is not as important as other PPs but still

seems to be necessary for a BT.

#### Expert Insights

- Expert 1 expressed caution against offering too much self-service in certain industries, warning of potential data manipulation and operational challenges.
- Expert 2 underscored the importance of self-service capabilities but emphasized the need for robust support systems for exceptions.
- Expert 3 found self-service essential for customer independence and reducing support cases, although the specifics depend on the software type.
- Expert 4 considered self-service more important than onboarding and admin areas but less critical than core automation patterns, highlighting its role in reducing direct customer support.
- Expert 5 suggested offering self-service options with clear limitations and guidance to prevent significant errors.
- Expert 6 rated self-service as critical for providing 24/7 service and reducing reliance on human customer service representatives.

The consensus among the experts is on the value of self-service customer service in SaaS for enhancing efficiency and customer independence. While Experts 3, 4, and 6 emphasized its indispensable role in streamlining processes and reducing reliance on human support, Expert 1 introduced a note of caution, highlighting potential risks in certain industries.

Expert 2's perspective focuses on the balance between self-service and robust traditional support systems, suggesting a need for fallback options. Expert 5 provided a strategic viewpoint, advocating for self-service with clear limitations to ensure operational integrity and prevent user errors.

To summarize the experts mainly agree on the usefulness of self-service in improving operational efficiency and customer autonomy, while also highlighting the importance of careful implementation and the provision of traditional support systems as a complement to self-service features. The collective insights suggest a trend towards integrating flexible and efficient customer service models in SaaS, with a focus on maintaining quality and reducing the potential for errors.

### **11.9 Process Pattern 9: Extensive FAQ Help Section**

PP number nine examines experts' views on the extensive FAQ help section in SaaS applications. The discussion centered on the transition from traditional FAQs to more interactive solutions like chatbots and their impact on customer satisfaction and support workload.

Pattern 9 is rated at an average of 5.67 out of 7 and is therefore also important for a transformation towards SaaS BPs.

#### Expert Insights

- Expert 1 suggested moving away from traditional FAQs towards more interactive solutions like chatbots to enhance customer satisfaction and reduce direct inquiries, emphasizing the evolution of customer support tools.
- Expert 2 also supported the shift towards AI-driven solutions like chatbots for dynamic customer assistance, highlighting the trend towards more technologically advanced customer support methods.
- Expert 3 noted the importance of providing immediate in-app information, especially for complex products, underlining the need for easily accessible and detailed information within applications.
- Expert 4 considered the FAQ section highly efficient for reducing support queries and viewed it as a quick and impactful solution, highlighting its operational efficiency.
- Expert 5 recommended an extensive, well-organized FAQ section and suggested including AI-powered chatbots to assist in navigating these resources, combining traditional and modern support approaches.
- Expert 6 rated the FAQ help section as crucial for improving customer experience and providing timely responses to inquiries, reinforcing its role in enhancing customer support.

The experts collectively acknowledged the significant role of extensive FAQ sections in SaaS applications, with a notable shift towards integrating AI and chatbots for a more dynamic and interactive customer experience. While Experts 1, 2, and 5 focused on the integration of AI-driven solutions to modernize customer support, Expert 3 highlighted the necessity of immediate in-app information for complex products.

Expert 4 emphasized the operational benefits of FAQs in reducing the support workload, suggesting its continued relevance in customer support. Expert 6's perspective underscores the overall importance of FAQs in enhancing customer experience and providing prompt responses, suggesting a balance between traditional information delivery and modern, interactive tools.

This reveals a trend towards enriching traditional FAQ sections with advanced technologies like AI and chatbots, aiming to improve customer satisfaction and operational efficiency in SaaS customer service models. With what the next PP is already foresighted.

### **11.10 Process Pattern 10: Website or In-Application Chatbot**

The last PP addresses the use of chatbots within websites or SaaS applications. Experts shared their perspectives on the effectiveness of chatbots in improving customer experience, providing timely responses, and guiding users to appropriate resources.

The rating is with a score of 5.33 a bit lower than the FAQ rating. Nevertheless, there were more experts favoring the Chatbot version of answering customer questions and giving support. The rating of Expert 3 (rated with 2) is falling into the calculation here quite heavily.

Expert Insights

- Expert 1 advocated for using AI and chatbots for customer interaction, emphasizing their efficiency in resolving queries and building relationships.
- Expert 2 suggests moving towards AI-driven solutions like chatbots for more dynamic customer assistance, highlighting the evolving role of chatbots in customer service.
- Expert 3 viewed chatbots as generally ineffective and less useful than well-indexed in-app information or help centers, expressing skepticism about their effectiveness.
- Expert 4 recognized the potential benefits of chatbots but noted the difficulty in assessing their impact without implementation data, pointing out the challenges in quantifying their benefits.
- Expert 5 described chatbots as helpful, especially in conjunction with an extensive FAQ section, suggesting a complementary role with other informational resources.
- Expert 6 rated chatbots as important for improving customer experience and providing timely responses to inquiries, underscoring their value in customer support.

The experts' views on chatbots in SaaS applications reflect a range of opinions on their utility and effectiveness. While Experts 1, 2, 5, and 6 emphasized the chatbots' role in enhancing customer experience and providing quick responses, Expert 3 offered a contrasting perspective, questioning their effectiveness compared to traditional information resources.

Expert 4 highlighted the challenges in measuring the tangible benefits of chatbots, suggesting the need for careful evaluation of their impact. The insights collectively suggest that while chatbots are increasingly seen as a valuable tool in customer service, their implementation and effectiveness need to be considered in the context of specific customer needs and the nature of the SaaS application. The trend points towards integrating chatbots as part of a broader customer support strategy, complementing other resources like FAQs and help centers.

### 11.11 Synthesis of Additional Insights

#### Trends and Future Directions in SaaS

**AI and Competitiveness:** Expert 1 underscored the growing importance of AI in SaaS as a key to future competitiveness.

**Market Consolidation:** Expert 3 anticipates a trend towards market consolidation, expecting fewer but larger platforms to dominate.

**Self-Service Models:** Expert 2 observed a shift towards more self-service models in the industry, though cautioned about their complexities and potential drawbacks.

#### Business Strategy and Customer Focus

**Balancing Customer Segments:** Expert 1 advised a strategic balance between enterprise and low-tier customers, suggesting adherence to the 80-20 rule for revenue generation. The expert claims that 80% of the revenue should come from 20% of the (usually enterprise) customers and 20% revenue from 80% of (lower tier subscription) customers, in order to still be able to stay in business if the low tier cancel or switch software provider faster.

Differentiating Customer Approaches: Expert 2 recommended distinct approaches for enterprise versus non-enterprise customers, with a focus on automation for the latter.

#### Security and Data Protection

Importance in SaaS: Expert 2 highlighted the critical need for robust software and data security, especially against threats like ransomware.

#### Integration and Complexity

Software Integration: Expert 3 emphasized the significance of integration capabilities for user management and data exchange with other tools.

Guidance Based on Complexity: The same expert also noted that more complex SaaS tools require more extensive support structures.

#### Operational Efficiency and Process Management

Discontinuous Process Management: Expert 6 focused on the management of discontinuous processes that require multiple steps and human interaction, like loan applications.

Feedback and Iterative Improvement: Expert 1 stressed the importance of learning through iteration and valuing feedback, especially from beta users.

The experts also provide insights into different tools and programmes they are using: Expert 1 for example uses visualization tools like Tableau and neo4j. For NoSQL databases mongoDB or AirTable is recommended.

Expert 4 has in insight on a Subscription Management Tool that is used in their SaaS company. Billwerk offers a SMS that has also an integrated automatic Payment Tool. Expert 2 recommends to implement an Enterprise Service Bus in order to connect different APIs from all the used tools with each other to create interconnection.

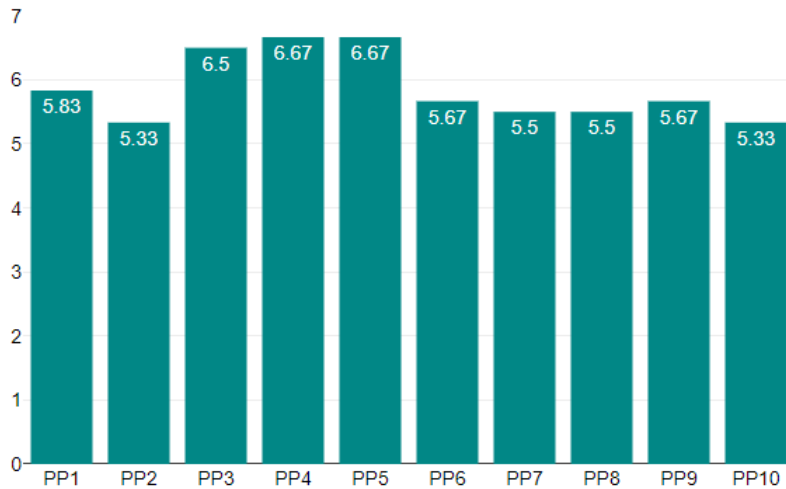
## 12 Discussion

The research identified specific PPs that facilitate the transition from SaaP to SaaS. These patterns, captured in BPMN models, provide a logical and graphical representation of the necessary steps in BT. They are designed to reflect best practices and generalized organizational behavior, offering a blueprint for managing this transition. A comparative analysis of current (as-is) and future (to-be) process models was conducted, focusing on the transition from SaaP to SaaS. This comparison highlighted the benefits and specific changes required for the transition, with patterns like “Subscription Management System” illustrating the practical steps involved.

The validation of these PPs was achieved through semi-structured interviews with industry experts. This approach ensured that the patterns were not only theoretically sound but also practically relevant and applicable in real-world scenarios. The interviews provided an opportunity to assess and rank the PPs based on their practicality and impact on the transition.

The alignment between the theoretically derived PPs and the insights from expert interviews underscores the practical relevance of the research. It validates that the theoretical models developed are not only academically robust but also resonate with industry practices.

Comparing the alignment with the to-be models it appears that patterns like PP3 (Subscription Management Tools), PP4 (Automatic Payments Tool), and PP5 (Interconnection Between Systems and Tools) [9](#) hold significance and have a more prominent and frequent presence in the proposed future state models. This alignment indicates that the patterns identified as crucial by experts consistently reflect in the envisioned models. See figure 12 for a comparison of the PPs ranking based on the mean of the provided scale ratings (scale of 1 to 7) by the experts.



**Fig. 34** Ranking of Process Patterns

However there are some differences between expert opinions and the to-be models. For instance a lower rating for PP7 (Customer Admin Area) suggests a disparity in emphasis between experts and the envisioned models. This difference might highlight areas where certain aspects are either overemphasized or downplayed compared to industry perspectives.

Nevertheless, the fact that some PPs only appear in one of the process domains and experts rating them still high (all the PPs are rated important on average), does not implicate a disparity in importance, since the comparison is not following a measure. Though, it is still an interesting finding to have the highest rated PPs, frequently modeled across the to-be process domains of the CLC. This emphasizes the need to strike a balance between frameworks and practical insights. While the to-be models offer an approach to transitioning into SaaS, expert ratings provide valuable real world perspectives on practicality and priority when it comes to these patterns.

The varying ratings provided by experts also indicate areas for future refinement of the to-be models. Patterns, with lower ratings may require reconsideration or adjustment in order to align more closely with industry needs and expectations. The guidelines for a BT towards SaaS BPs derived from the SLR, with the most important ones being Automation and Self-Service derived, turned out to be applicable and useful in this case. But it should not be the goal to appear without any human touch to customers and automate all processes there are. The combination of high-tech solutions (like automated payments and chatbots) with patterns emphasizing customer service and support underscores the need for a balanced approach in SaaS transitions Integrating automation technology in the BPs while maintaining quality human interaction where it is needed (for example Enterprise customers, severe technical errors, or out of ordinary inquiries) should be more in the focus.

In summary, when analyzing the similarities and differences between the PPs in the to-be models and the evaluations provided by experts, insights are gained into how applicable these models are in practice. This emphasizes the significance of aligning theoretical models with changing industry perspectives to ensure that BTs remain relevant and effective. It can be derived that the implementation of the PPs in SME software companies are relevant and on average important to transform the BPs into SaaS compatible processes. The thesis gives insights into how these to be models could look like for other companies to adapt them, which are in a similar starting situation. It is also explained why and which advantages the to-be models bear. Among the most important being the saving of human labor force by Process automation and to shift the focus of that labor on more lucrative areas of the business. The paper also shows on where to implement the PPs in the new processes, which provides starting points for companies that are planning to do the same. It is important to note that a Business Transformation does not only work by trying to implement new processes. As already mentioned this thesis is a fraction of what a BT includes. Compared to other research, this thesis contributes to existing knowlegde by giving a insight on the BP side of a BT, with visual presentation based on a real life example. This combination appeared to be rare during literature research.



## 13 Limitations and Future work

### 13.1 Limitations

**Scope of the Study:** This research primarily focused on a specific case study (Flexopus) and its transition from SaaP to SaaS. While this provides in-depth insights, the findings might not be universally applicable to all software companies, especially those with different business models, company size, or operating in different market contexts.

**Methodological Constraints:** The reliance on BPMN for visualizing processes, though effective, could have its limitations in capturing the nuanced dynamics of BTs. There's a possibility that certain subtle but critical aspects of the transition process are not fully encapsulated in the BPMN models.

**Expert Interviews and Bias:** The study's reliance on six expert interviews may introduce subjective biases. While these insights are valuable, they represent individual perspectives which may not fully reflect broader industry trends or challenges.

**Literature Review Scope:** The SLR conducted might have certain limitations in terms of the publications selected. The evolving nature of the software industry means that more recent developments post the literature review timeline may not be included.

### 13.2 Future work

**Expanding the Study Scope:** Future research can focus on a wider range of companies undergoing similar transformations. This would provide a more comprehensive understanding of the challenges and strategies across different contexts.

**Alternative Modeling Techniques:** Exploring other process modeling techniques beyond BPMN could offer new insights. For instance, incorporating data-driven models or simulation techniques might reveal different aspects of BTs.

**Longitudinal Studies:** Conducting longitudinal studies to observe the long-term effects and sustainability of the transition from SaaP to SaaS would be beneficial. This would help in understanding the enduring impacts and adjustments required post-transition. A publication that focuses on the growth of SaaS companies is 'Technology-as-a-Service Playbook: How to Grow a Profitable Subscription Business' [128] by Thomas Lah & J.B. Wood. That paper might be helpful for investigating and running a SaaS business on the long run. .

**Technological Evolution Impact:** As technology continues to evolve rapidly, future research should consider the impact of new technologies on SaaS models. This includes examining the role of emerging technologies like AI and machine learning in optimizing SaaS operations.

**Comparative Analysis Across Industries:** Extending the research to include comparative analysis of SaaS transitions across different industries could uncover unique challenges and strategies pertinent to each sector.

**Empirical Validation:** Empirical studies to validate the proposed PPs and their effectiveness in real-world scenarios would add practical value to the research. This could involve collaborating with multiple companies to implement and assess the proposed models.

## 14 Conclusion

This thesis has delved into the journey of moving from SaaP to SaaS using Flexopus' BPs as a case study.

The research findings offer insights into the intricacies and dynamics of this transformation providing a road-map for software companies contemplating a similar transition.

### **Key Outcomes:**

**Development of PPs:** The thesis successfully identified and created PPs, validated by industry experts, that are crucial for embracing SaaS. These patterns offer a structured approach to effectively manage the transformation aligning BPs with the requirements of the SaaS model. These PPs are also the result of SRQ3.

**Integration of Theoretical and Practical Perspectives:** By combining a SLR, which found the key business challenges of a BT towards SaaS and therefore answering SRQ1, with expert interviews, this study bridges the gap between theoretical frameworks and real world applications. This integration enriches the understanding of the SaaS transition process with practical insights.

**BP Modeling:** Through utilization of BPMN this thesis visually depicts the transformation processes. This modeling plays a role in comprehending the shift from a process oriented standpoint. With a combination of BPM, BPMN and the Design Science method, a step by step approach was developed to sufficiently depict the changes and developments that were made during the BT. This approach also answered the second SRQ of this thesis.

The use of BP Modeling, in more detail BPMN, for the BT from SaaP to SaaS has proven to be a robust approach, offering clarity and insight into complex process changes. Process models facilitated a detailed examination of each step in the transformation process, ensuring that strategic and operational shifts are adequately planned. The insights gained from Flexopus underscore the effectiveness of BPMN as a tool and BP Modeling as a methodology not only for representation but also for strategic planning and process optimization in the realm of DT and BT.

By thoroughly answering the Sub-Research Questions (SRQs), the thesis effectively illuminates the process of modeling a BT from SaaP to SaaS using BPMN in all its details. This comprehensive approach describes every phase of the transformation journey – from the initial identification of challenges to the intricate modeling and visualization of the transformation process, and finally pinpointing the specific, tangible changes necessary for a significant impact on the processes.

The first step, addressing the crucial challenges inherent in the SaaP to SaaS transformation, lays the groundwork for understanding the scope and complexity of the task at hand. This foundational understanding is crucial for guiding the subsequent modeling process.

The detailed BPMN modeling, as explored in the second SRQ, provides a visual blueprint of the transformation. This visualization is not just a theoretical exercise; it serves as a practical roadmap, outlining the operational shifts required for the transition.

Finally, by identifying PP and key areas for implementation or change, insights are gained into the most impactful aspects of the transformation. This step ensures that the theoretical models translate into actionable strategies, contributing significantly to the transformation's success.

the answers to the SRQs collectively provide a clear, step-by-step guide on how to effectively model a BT from SaaP to SaaS using BPMN. This process encompasses everything from identifying the initial challenges to implementing the final changes for a profound impact on BPs. Thus, the thesis comprehensively answers the MRQ, offering a detailed, actionable pathway for such a critical business transformation.

**Implications: Guidance for Software Companies:** The findings provide guidance for software companies navigating their way towards SaaS emphasizing planning and adapting processes as critical factors.

**Contribution, to BT literature:** This research contributes to the existing knowledge, about BTs in relation to software service models.

The following are the contributions of this study:

1. **Practical Transition Framework:** The PPs developed in this thesis offer a framework that companies can use to manage their transition to SaaS.

2. **Improved Understanding of SaaS Dynamics:** This study enhances the understanding of the cultural and strategic dynamics involved in moving towards a SaaS business model.

In summary this thesis not only sheds light on the complexities of transitioning to SaaS, it also provides a guide for businesses navigating this transformation. It represents a contribution, to the field of BPM in the evolving landscape of software services.

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I also want to thank Flexopus for giving me the chance to cooperate on this topic. Special thanks to Markus Merkle, my company supervisor, who met with me every Friday to speak about the progress and helped me with anything I needed. Also, a big thank you to Philipp Wahju and Daniel Fafula for taking the time to help me get valuable insights for this thesis. I also learned a lot during my thesis internship for which I am very grateful.

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## Appendix A List of abbreviations

List of abbreviations	
Abbreviation	full word
SaaS	Software-as-a-Service
SaaS	Software-as-a-Product
BT	Business Transformation
BP	Business Process
SLR	Systematic Literature Review
BPM	Business Process Management
BP Modeling	Business Process Modeling
BPMN	Business Process Modeling and Notation
PP	Process Pattern
CLC	Customer Lifecycle
SME	Small to Medium Enterprise
MRQ	Main Research Question
SRQ	Sub Research Question
DT	Digital Transformation
TQM	Time Quality Management
MIS	Management Information Systems
BPR	Business Process Re-engineering
AI	Artificial Intelligence
DSM	Design Science Method
SMS	Subscription Management System
CRM	Customer Relationship Management

## Appendix B Expert Interview Question catalog

# Expert Interviews for Master Thesis

## Introduction and Definitions

My Research at University of Utrecht (Netherlands) focuses on the Business process based Transformation of software companies offering Software as a Product (SaaP / traditional software / 'boxed software'), towards selling that software as SaaS. My research focuses on the Business Processes and **not** the technical aspect of bringing the software/code into the cloud. For visualisation of the Transformation, Business Process Modelling (BPMN in my case) is used.

**SaaP:** "Software as a product is a product/software, which is made to be sold to users, and users pay upfront one-time for a licence which allows them to use it. Usually hosted by the customer themselves on their own infrastructure. Also, often called "boxed software"."

**SaaS:** "Software as a service is a software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted (typically in the Cloud) by the vendor. Accessible via Web Browser."

### **Let's focus on the Business Processes:**

**Imagine** a fictional B2B SME software company with the following examples of how some of their Processes look like:

Sales Inquiries per contact form on company website; Sales calls or demo calls for all Inquiries (small, medium, large); Leads will get infos about pricing in mentioned demo calls; Sending Emails for all non-direct communication; Email conversations and PDFs for signing contracts with new clients; Onboarding the customer manually; giving hands on Customer Service regarding changes in the usage of software (non-technical issues); E-mail conversations for answering client questions, checking invoice dates and send yearly adjusted invoices manually based on the software usage of client; Contract Termination by Email; Contract changes per Mail conversation, etc...

**The fictional company wants to transform into a SaaS company.** Let's assume that the software has already just been made accessible in the cloud for customers, which is already one major criteria for SaaS. And now the just presented **Business Processes**, which still resemble the processes of traditional software companies (SaaP) should follow as a second part of the Transformation towards a typical SaaS version of their product, with Your help.

# Questions

## Personal

Thank you for taking the time to talk to me. Could you please introduce yourself shortly and list your experience with SaaP and/or especially SaaS?

Do you consider your SaaS company or consultancy firm to be a small / medium / large enterprise?

## Process Patterns:

The interview will consist of **10** Process Patterns (measures/guidelines) that **could or could not**, — depending on Your verdict — be helpful for transforming the **Business Processes** of the current SaaP company into a desired SaaS version. All the process patterns concern the company undergoing the Business Transformation (SaaP → SaaS) and if they need to implement the process patterns for their planned Transformation or not...

- I will ask you to think about how important/ applicable the process patterns are and rate them from **1-7**. Where 1 indicates “not essential / applicable at all” and 7 “very essential/ applicable” for the Transformation. (Explanation: If you find all patterns very essential, for example, then You give all of them a rating of 7, or any number that You decide on; it is **not** meant to rank the patterns against each other (1st place, 2nd place, ..., 7th place))
- Please also explain and justify your answer
- Please also share your knowledge on best practices for the specific pattern.
- Also point out any possible limitations for the process pattern

### Let's begin:

1. Introducing Subscription-Based Software Packages on the Website:
  - Transparency in pricing and features. Disclosing what customers get at each price tier.
2. Offer Enterprise Package with Hands-On Work:
  - Offering an enterprise package that combines software with personalised contact points throughout the customer journey.
3. Introduction of Subscription Management Tool:
  - A central hub for managing all subscription-related activities, including sales, changes, terminations, and payments.
4. Introducing Automatic Payment Tool:

- Tool for seamless billing and payment processing. Collecting subscription fees. Checks incoming payments on a bank account automatically.
- 5. Establishing Interconnection Between Systems and Tools:
  - Integrating various systems, such as CRM, subscription management, payment tracking, database, and the application, with each other.
- 6. Introducing Onboarding Area in SaaS-Application with Step-by-Step Self-Service Process:
  - A guided, step-by-step approach for setting up the Customer Instance.
- 7. Introducing Customer Admin Area in SaaS Application:
  - Allowing customers to manage their subscription details, payment options, and contract-related actions from within the application.
- 8. Introduction of Self-Service Customer Service:
  - Enabling customers to make changes independently.
- 9. Development of an Extensive FAQ Help Section.
- 10. Development of a Website or in-application Chatbot for answering questions.

## Additional Insights

- Are there any essential process patterns that I missed? (excluding the pattern of transitioning the software from “boxed software” (client has to download software and host on their own infrastructure) into a cloud server and also ensuring the data security)
- Feel free to share any additional insights, best practices, or trends You have observed in the industry related to SaaS and/or SaaS transformations.

Thank you very much for participating in this interview! For further questions or insights, please feel free to contact me:

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+4917681309047

## Appendix C Process Interview with Flexopus



A: dir in dein Meet Recordings-Folder in Google Drive.

B: Yes, you'll probably get access as well because you're probably a participant.

A: Okay, it should work. Let's start from the beginning, do you already have some kind of documentation of processes or something? Do you already have something like that, if I could access it, which also gave me a

would make it a little easier?

B: Partly in the wiki actually, but that's more like, yes, so not really modeled,

But firstly, secondly, thirdly. For example, deletion process.

What happens if a customer cancels? Then we kind of wrote down a few points. But only very isolated processes.

A: Okay, termination would also be a good business process.

B: Yes, exactly. Even then, how to handle the data, so just yes, deleting termination, deleting data, retention periods and so, yes.

Sales

A: Okay, interesting, yes. Okay, then I'll start. I hope you see it all.

Okay, so here I am now in the BPMN.io, I've already done a little something.

That's the sales process now, that's where I started, that, so here vendor, so

Software vendor, i.e. Flexopus, so to speak, and here lead.

So first of all, a demo call will be received, can go a little closer to it.

Democall booking received, i.e. via the website, exactly from the lead, then,

B: Well, that can, can be via the website, but also by phone, I don't know if that, A: yes, you would have to be like that, so now, as I said, only from my previous knowledge, so somewhere there is still something that you should add, then always jump into it in any case, that's the point of the thing.

Exactly, here, that's the input, that's where the process starts, i.e. democall booking received. Then there are two things you can or have to do, just on the vendor side.

B: Yes, that's what I find here, too, I just always hook in and add. The current

The process looks like this: an inquiry comes in via contact form, phone or. This arrives in our Hubspot in the inbox, Markus manages it as a gatekeeper, I would say, and then assigns the different leads to different people and then it goes on into the process. Markus always has a bit of a quality gate in front and then distributes it to the different people depending on the size of the customer, because some of them may also be English-speaking. And then you might put Nils on because he speaks better English and that's what he does. Okay, then let's move on.

A: Okay, well, then you just prepare the demo call, as it always looks like, when it's also mental, that you know there's the demo call, because most of the time it's always the same, but I just added it. and then you document a new lead in the Google Sheets, then you go to the appointment, i.e. "Host a Democall" with the lead.

B: Exactly, there are also differences, depending on the lead, size or type of request

There are different email templates that we send out.

I'll give you an example, if it's just very small customers who are somehow

Request 10 objects and who only want to know the price, then send them

we sometimes just directly the price or the offer, so quasi Quicklane mediocre

and skip the demo call, for larger customers who need a bit more information, we arrange a demo call to pick them up better and then there is the offer for the connection and with the smaller ones we also have a YouTube video, which we also send along, which is also a demo call, only recorded, so there are basically the two lanes, I would say, depending on the size, either just send information by e-mail or democall.

A: Okay, so what's the guideline there, so a number of objects approximately?

B: That, I would have said, anything under 20 to 30 will be solidified right away, unless we

have so many operating capacities, then you might be able to add one or more

other smaller ones as well, but actually, yes, the smaller ones more with e-mails

directly and with the new SaaS then, which will hopefully come soon, yes, should

the little ones won't get a demo call anyway. You can already define that, everything below, let's say, 20, he gets e-mails directly, unless they want an explicit demo call.

A: Okay. All right, then I'll continue here, then we have the first Exclusive Gateway. So either or, here, how much interest there is in the lead, here just not interested, but I assume that the process doesn't end then, but that you write again at some point, right?

B: That, exactly, there are also different process paths, so on the one hand it can be that we then somehow send information through, so we actually try that with everyone

There is rarely or never that someone jumps off here directly

and says, ah no, it doesn't fit, but we actually still send a follow-up email through and then we wait, so a few weeks, months until we just follow up again or the lead then gets back to you after a certain time.

But in principle, we send something out and then we wait<sup>ddd132</sup> until something comes again.

And if no one gets in touch for a long time, then we'll follow up again.

Okay, so. So you can allow that here, but it's extremely rare, this not interested part right after the democall, that they then say, ah, everything stupid, you don't need. It's more the case that everyone is interested after the call, of course, then they just get

more information or an offer and then we have to wait.

A: Okay, okay, yes, okay, so I modeled Interested here in such a way that you can just in Hubspot, no, another tool was it or the offer?

B: The Lex Office, exactly, in Lex Office we then create the offer.

A: Okay, exactly, the offer is generated and then you send the offer to the lead, who then holds it and then has to decide whether to accept it or just

Rejected

B: or continue negotiating. Of course, this happens often.

A: And then here's the waiting state, so a waiting gateway or a special

Gateway. They are just waiting for an answer. The two possible answers and here the time, so that you just wait, where you said, I just wrote for two weeks because I knew exactly how long it was.

B: Yes, so it varies depending on the size of the company. So we know that the mills grind slower in large corporations than in smaller ones. That's why, yes, I don't think you can write a direct value into it, but you can just leave it at two weeks.

A: Okay, and then after two weeks you send a new offer

B: Or a reminder simply. You just follow up in a friendly way and ask: What does it look like?

We have, I don't know if this is relevant here, but we are sending an offer

with order form and the customer must fill out the order form and return it. So it would then be here at Accept Offer via the order form.

That's what we'll achieve. All relevant information is then stored there. Exactly.

A: By relevant information, do you mean which modules?

B: Billing address and start of the contract, so here is this setup contract in the

Don't fall directly, because if the customer, so we're going to go here now from the standard process

sign the order form, then he automatically accepts our

generic software license terms and that's basically the contract.

This means that we do not have to draw up an individual contract with the customer, but with the

accepts our standard terms and conditions via the order form and then it can be

directly or we will send an e-mail afterwards and then get the

What is the latest information, maps, which domain, which logo should we use? This means that the next step, once the customer has accepted the offer, is actually just about that, then we send ourselves all the relevant information and then we can start.

A: Yes, I have the cards and so on in the onboarding process at the beginning. Here I just have, ok, up to the contract signage.

B: But that out of the back, that's then, so that's actually all together and the last step would really be when the order form comes back, here Accept Offer, then we just put customer document or just push the lead to the Customer document, exactly. So that would actually be the last step.

A: Then this is unnecessary for sales.

OK.

Are there any compliance regulations that need to be observed here that are should not change?

B: What do you mean, so quasi, so in the best case you don't fit the order form at. So now there are always customers who just shoot in between and put their want to push through their own contracts. These are just special cases.

They just go into dialogue and say, ok, yes, your software license terms are nice, but we would like to use EVB-IT contracts. But we've always tried to push it through. You must sign the order form and accept our terms and conditions. What exactly did you mean by compliance?

A: Yes, things like that, such contractual or legally regulated procedures for entering into contracts or something like that, which you just have to maintain, even if you somehow restructure the process.

B: So that's the standard sales process again.

You already know tenders, so the process is a bit different, because in the case of tenders, you have to create individual contracts, yes, like EVB-IT and Co., because otherwise you don't have to take part in the tender at all.

In tenders, it is often the case that you simply have a fixed price somehow and doesn't send out a real offer, but somehow just a sum.

And so I think I would completely exclude tenders here, because the Tenders, they are all so individual from the process, because every tender is differently.

ddd134

A: Ok, do you have KPIs for the sales process? So you're somehow measuring success rates or something?

B: Unfortunately still too little, but now there should be even more.

We have now introduced a KPI, it would be said that in the lead you just in the key account at the very front, i.e. if we write down the lead in the lead table at the front, so to speak, then Markus assigns the lead to a person and then we know, ok, that's now for example, Nils or you are the key account and then you can track at the end how much convert then, i.e. how many deals then has or how many leads has Nils and how much of it conclude. That's a very rudimentary KPI, but now somehow by quota volume or offer volume or object volume, we don't look at that at the moment.

A: Ok, but it's desired in the future, right?

B: yes, so definitely cool. Only Hubspot theoretically offers something like this, also reporting, but we don't use the quote feature there because it simply doesn't fit our process here. And the quotes are not generated in Hubspot, but in Lex Office, so it would simply be very tedious to add that in Hubspot that we somehow also have the financial figures of the customer or of the offer in Hubspot. That's why we can't do an evaluation in Hubspot and have to fall back on the leads table / customer table, that's where we can pull out KPIs.

A: Ok, well, so and then again to understand in the sales process, is Lex Office, so right now the system or tools in Wolf is Lex Office, Hubspot is for customer contact,

so relevant for communication, so communication is done via Hubspot.

Exactly, those are the two main tools.

A: And just Google Sheets for documentation.

B: Exactly, for documentation Google Sheets.

A: Demo calls are hosted on Google Meets, right?

B: Most of the time, no, teams actually, it's also a trip tool about teams, because

Microsoft Teams works for most customers and it doesn't work for everyone, that's why Teams is the common denominator, where everyone works. This is then usually also set via Hubspot.

A: Ok, well, then I'll move on to the next one or is there anything else you want to say

zum Sales?

B: So maybe one more thing, first of all, people can also book direct demo appointments. So we get quasi loose e-mail requests, hey we have x objects or x tables, send me more information, then we write back, yes here first information, demo date you can book here via the link. Or we also have a calendar function on the website, where people can book directly with individual people with the round-robin system. So round-robin means that there is a calendar stored there and when a customer or a lead books, then a free slot is automatically booked with the person.

A: Ok, that will show up in the calendar and so on, right?

B: Genau, local.

A: Ok, alles klar.

Customer Service

A: Okay, then I'll move on to the next one, that would have to, ah, customer service case.

In this case, because I've just noticed new objects or new maps

for existing customers, this is a case that always happens very often, now in customer service, I would say. There are probably other things that are also important, but you can tell me about them.

Exactly, so here is the vendor, i.e. Flexopus as a pool, then we have our own Customer Service Department Lane and UX Design Lane, so to speak, Hungary,

Exactly, just to understand. Again, Customer E-mail Received for New Objects, exactly, then you can use three

Do things at the same time, and you just read out the required change, if it just reads through what the customer wants, because it is often described in the text, because it is more precisely what the customer wants, then you load this screenshot underneath, of what the customer has sent, where he may have already marked the changes, Anyway. Then you can also log in to the customer's cloud instance as an admin at the same time, just via Nova, where you can also download the current sitemap, i.e. the site plan as SVG. Here where you have downloaded the image below from the customer email, you first have to check if it is a PDF, if so, you have to convert it to another data format, i.e. PNG or JPG, so that you can upload it to Figma in the end, that will come later, exactly, here you just merge everything. Then you go to Figma, look for the customer file in Figma, then you upload the screenshot of the customer, the desired changes, also upload the current site plan as a vector map, which you have downloaded from the Cloud Instance, so that everything is up to date. Then you copy the link of the Figma file, navigate to the Maps channel in the communication channel, in this case Mattermost, write a short description of the desired changes, and copy the Figma link in, exactly, and

that goes here to the design lane, to Dorka and so on, they then hold

a new design inquiry, then make the required changes and then just inform

also in the same communication channel, the customer service lane that made everything

has been implemented, exactly, they just get the info, then navigate to the admin area

also via Nova, download the new site plan, the map in Figma

in Flexopus format, are then just in the Nova, in the admin area of the customer,

there they upload the new SVG map, then they compare, i.e. Compare Updated

and Old Version, there is the function, exactly, so if the new map works and everything

is customized as desired by the customer, then you publish the new map for the customer and then you end up doing two things at the same time, you inform the customer again via email that the changes have been made, have been made and then you document in the customer, customer in referrals, Google Sheet, what has been done and then the process ends here, if the map doesn't work, then

there's just 'No' here, doesn't work and then I don't know exactly how it works, what steps you have to take.

B: Like the last time, acoustically it didn't arrive, the last sentence?

A: What you have to do when you see if the map you uploaded works, the new map, if that doesn't work, if something doesn't work, what you then

has to do.

B: You have to debug n and see what's going wrong, if the layers are wrong somehow,

But that's rather individual.

Maybe up front, so basically it fits, so you now have the process here,

I'll say plan, adjustments modeled.

Here I would actually distinguish between two, one between as-built plans and one between completely new plans. You've now basically adjusted as-built plans, modeled them.

With new plans, i.e. if it's a completely new plan, then you can just

and then upload it at the end, because you have to do the whole check, you can actually ignore the exam.

A: Yes, I think I have that here. So that's the other thing for me.

B: It can also be that there is already a customer who simply wants new locations or something like that, then it's not directly an onboarding, but simply an extension

Plan, adjustment, plan, changes. So the question is, where do you put it in?

B: No, probably here, if it's already an existing customer, but a completely new one

Location, i.e. the map does not yet exist, so to speak, then you have to differentiate, then

exactly, if it is an adaptation of an existing plan, then there is no

nor that we deactivate the map editor for a short time. Well, at least that's what I do, I hope the others do the same, to avoid that during the plan adjustment, the customer himself doesn't somehow make changes in the map editor and then the two files diverge. This actually means that if we get such a map adjustment from the customer, hey, you do that, then we have to deactivate the map editor in Nova so that the customer can't change anything and then reactivate it at the end.

That's what's missing here.

ddd137

A: Okay, where would you put it?

B: If we export the files here, where did you get that moment? Exactly, exactly, the next step or before that would have to be to deactivate the map editor.

Or rather, wait, wait, why do you have three lanes at all or doesn't that have to be pulled out?

A: What do you mean?

B: Well, downloading the current map, that actually belongs behind it, behind it

the lane, right? Because that's what you have to do at every step. So that you have the current map in Figma then. So, I'll give you an example.

The customer starts with us, we convert the card initially, then load it into their instance

then the customer works with Flexopus, changes things independently in the map editor,

then our Figma file is outdated and the instance is updated.

This actually means that when map changes come in, we always have to download the current map to make sure that we adjust the current map.

That actually has to be the last one, exactly the Bobbel, who actually has to go out instead, so

because Search Custom Graphics, so you search for the file and then try this downloaded map in this file. Can you follow me somehow?

A: Yes, I just downloaded the current sitemap from the Nova instance here and loaded it here

you can get them up in Figma.

B: Exactly, and next to that you also load the JPEG or PNG, actually it's more of a process that the creation has all the information, so you can also summarize it, yes, all new changes and the old map are uploaded so that the design team just knows what he needs to change, what the current state is and what the desired state is. So up here, I think, you just have to clean up a bit and the order.

A: Yes, but actually, the three parallel processes here, you can actually, they don't depend on each other here, in terms of time, you can do that as you like.

B: Ah yes, I got it wrong, these are parallel processes, sorry, I

misunderstood it. Yes, sorry, no, then it fits.

A: All right, yes exactly, so plus is always parallel and X is exclusive, so either

or, exactly.

B: But still, the Nova instance has to be deactivated and that has to be put in and on the

At the end of the day, the map module will be reactivated.

A: After uploading it?

B: Exactly.

ddd138

A: Okay, no, here most of it has been so far clear to me as well, because

I've done this myself a few times. Yes, here, if it's just, if the update just doesn't work that way, then there are different ways you can do it, right?

So... Yes, so you just have to look at that.



B: Ah, you can model it down to the smallest part somehow, I know but not whether that's expedient, that's just a lot of experience, so if I somehow upload a map where there are no objects in the new map, then there is probably something wrong with the layers.

If there is somehow one type, i.e. if there are too few objects, then it is actually always what's wrong with the levels. But it can also be that the map was exported incorrectly, that the IDs were not, so in Figma there are export settings, that they were somehow activated incorrectly, but that is very individual.

Maybe then it's just, yes, kind of just fix, fix problems, and go back up or so.

A: Good. There are no KPI's or anything like that here, right?

B: We have an SLA, so to speak, by when or how quickly something like this should be implemented.

We say, yes, card change a maximum of one week or five business days. If it takes longer, we can actually install it here, if it is, so sometimes a customer somehow sends about 20 floors. For example, if it's a really big customer, then we'll just inform you in advance, yes, thank you, thank you for the cards, but it can just take a little longer. So, it's just the question of whether you still do an 'inform customer' at the front, that's why in the process, if the graphics team is somehow completely busy, that can also be. So that means that we send an info e-mail at the beginning, otherwise, if we know it will be ready in one or two days, then we make the changes and inform you

then the customer.

A: I forgot to put e-mail in here, so e-mail to customers, okay, will be implemented now or okay, will take a little longer.

B: Exactly, exactly, so just let the customer know.

A: yes, okay, yes, that's right, I'll have to put it in again.

Onboarding (00:58)

A: Okay, thanks, I'm going to onboard, so I didn't know much about it, so I'm just modeling a beginning.

So, input is again that a new customer has been recruited, so it actually connects directly to the sales process, so new customer is acquired.

B: Yes, normally, when a new customer has been acquired, then an e-mail lands in the support inbox and that's how it starts, so that means, then Markus or whatever, hey, new customer acquired, please start the onboarding from setup.

And then we have a ticket directly in HubSpot and can work with it.

In other words, the next step would be in the ticket, so if the, I'd say,

the salesperson has done it cleanly, then he has even already stored everything in the folder, so in the customer folder, in Google Drive, all the maps and so on, or they hang still in the e-mail that was then written to support@flexopus.com, then all the cards are hanging there and then it actually starts.

This means that first of all the maps are prepared, which means, of course, that everything is viewed. is understandable, otherwise, of course, questions have to be asked, then the

Maps prepared in Figma, then analogous to the adaptation process also in Figma or he has created a new Figma customer instance for the new customer

and then again briefed the creation accordingly that the cards should be implemented. They will let you know as soon as the cards are ready.

Then the instance is created, i.e. in Nova, a new instance and then there is actually already a process, I don't know if you have already seen it in the wiki, but I could send it through afterwards, with such different steps, that is, we fill in various data already in the press, we fill in, we upload the maps, if we have already received a user list from the customer, we upload it and just do the initial setup.

It may now be, this is now such an optional part, if the customer has Single Sign On

has booked for this purpose, then it may be that the customer carries out the integration in advance

with us, with the IT team, so to speak, which means that they then book an appointment to carry out the IT-SSO integration together. This can run parallel to the map creation, i.e. the maps do not have to be in the instance yet, but the instance must be created. But this is also more likely to be discussed individually with the customer when this happens. So actually there are three main paths, so one kind of, the map creation is one path, then the instance creation itself and then the integration of SSO. But for this to happen, the instance must already be there, which means that if the customer, it would be said, wants to do the SSO integration, then the instance must have been created beforehand. Exactly, and at the end, when the cards are ready, the instance is officially handed over with a large onboarding e-mail, where all the information is available to the help center. If you want to do an admin demo training, we always offer that. I think only 10 or 20% actually notice it.

This means that in the onboarding email we also have or it says, if you would like to have an admin training, then feel free to contact us and then there will be another admin training and then the onboarding is done.

ddd140

A: Okay. Can I leave it like that for now? Well, you meant that the instance then goes down to IT, the cards then go down to Design and that at the beginning of the process then just asks the customer the data.

B: Because that's actually before that. This is still done by the sales team, not the support team directly. So actually, the key account does before that, collect all the information so that we can create the instance. This means that, in the best case, there should be no more queries with the customer.

This means that the support or onboarding team only communicates with the customer at the end. Everything should have been clarified before that.

A: Okay, so the transfer of the data and so logo or desired domain, whatever.

B: Yes, this should actually be completed beforehand in the sales process.

So that would probably have to be pulled over there. Because that's actually still a task for the sales team.

A: Okay.

B: Exactly, and then we kind of continue here with the branching.

A: Okay. But that's a figma upload and so on. That's what the onboarding team does.

B: No, no, that's what the support team does, exactly. So now the onboarding team, exactly, yes.

A: Okay. So from here it goes...

B: Exactly, exactly. All the data is there. All relevant data is actually...

All relevant data must be available. Unless it happens that this is somehow not quite explanatory in the map. Then the support or onboarding team has to ask again. However, these are more likely to be marginal cases.

That is, in the other process, you also have somehow...

First of all, you have to understand what the customer wants. And this can also be parallelized here.

A: Okay. Alles klar.

B: And this IT link is optional. So if the customer... So we have help articles about it, of course. But if the customer wants to go through the SSO integration in a joint call, then he can do so. And make an appointment, then it will be linked. And what comes to my mind is that if the customer has booked a QR code module, then it has to be sent at the end. So it would also be an optional process at the end that the QR codes are then cut up here in the office, or just sent according to the number.

A: Okay. That means they want to book QR code and then you hand it over to an external company?

B: No, no, we're mixing that up here. So we have the QR codes, we order them from an external company, they are ordered. And here in the office then, yes, just lying around here. And we always cut these rolls into A4 format and then send it accordingly.

That is, if someone doesn't have 100 objects, a sheet has 16 QR codes,

then send stop, 100 divided by 16 and round up stop, then send to the customer by mail.

And that's what the onboarding email says.

So there we write, hey, the instance is set up, the QR codes will be sent today and should arrive in the next few days.

A: Okay. And now let's go back to creating the cloud instance.

So if there is no SSO booked, then the IT department is not involved in the matter, right?

B: Then no. So then it just runs through and then just becomes the onboarding email.

A: Okay. And the cloud instance of the position is in the wiki, so you can send me exactly how it works. You think so, right?

Test.

B: Do you have access?

A: Ah, no.

B: Okay. About GitLab. Do you have a GitLab account? You should have, right?

A: I don't think I have Flexopus-GitLab yet.

B: Okay, then. Yes, otherwise I can do it later, or I just do it as a PDF saving.

Exactly, I'll send you.

A: Okay, perfekt. Okay, super, danke.

Exactly. Okay, and if SSO was wanted, then the, i.e. instantiation of the cloud, still does customer service, but then...

B: Exactly. So this runs in parallel, which means that the instance is then created simply and the IT department employee who...

A: Now you've been away for a while.

B: What else did you hear? So I'll just say it again, that is, if SSO has been added, then usually is, the onboarding team creates the instance, then the instance will still be used as far as possible, maybe the cards are then not yet in it, then a joint appointment with the customer is arranged, with IT plus the customer, and in a screen-sharing appointment, the SSO will then be yes linked in the existing instance, where perhaps the maps are still missing.

ddd142

A: Okay.

Okay, then systems are innovated by Nova, then again Figma is created.

B: Figma, Hubspot for communication.

A: For communication.

B: And Google Drive, because that's where the files are stored, so if necessary, if they're not in Hubspot in the email.

A: Okay. All right. Good. I know too far about that.

Good. Do you have any other processes that are important now?

Invoicing

B: The invoicing process is also very exciting.

A: Then I can stop sharing now. That's all I've done yet.

Good.

B: Then you would have the entire life cycle with the main processes.

Sure, there's still termination, or if you like, out the back here, then you really have the complete cycle.

But let's start with invoicing, with the factoring process.

It currently works as follows: we have the customer table.

There, a contract start is stored in a column. Basically, Julia and I, or the factoring team, let's say, Department, we then filter by the start of the contract,

if today's date is just over it. This means that, for example, if new contracts started on 01/06, then only those that started on 01/06 will be displayed,

and then we bill for them. The month is over now, I'm going to do July for example. We have a regular appointment in the middle of the month and then write the invoices for July 1st. This means that in mid-July, we will then write invoices for all customers with a contract starting on 1 July.

That is, we filter the customer table by July 1st.

Then there's a number of customers and then we go through per customer

and then create an invoice in LexOffice, where we also create the quotes. That's the tool we use there, create an invoice there.

We look at the contract data, i.e. how much we originally licensed

and compare that with the real data in NOVA. This means that in NOVA we can see how much customers are really using.

It may be that properties have been added over the term of the contract

or have remained the same. So, that's the easiest thing to do, if it's stayed the same,

then we will issue more or less the same invoice as last year, only without the one-time set-up fee.

If there are more, then there are a few special cases.

If there are more, then we'll see if it's still just within the framework or do we have to do a recalculation?

Well, we actually want to avoid recalculating, because that's a bit of an accounting effort. That's why we're just making sure that, okay, if more have been added now, then in any case, the next twelve months will be billed with the higher number.

This is also stated in the software license terms.

And if there are significantly more, then we still have to do a recalculation over the months before.

So, I'll give you an example.

A customer originally licensed 100 objects and also paid for them at the beginning.

And meanwhile he has increased to 200 or in the middle of the year he has increased to 200.

Then we still have a difference of six months, where we would have to bill 100 additionally. And that's very individual. Sometimes we let that fall by the wayside. Sometimes, even though the customer is familiar with the new graduated price, we

or the new graduated price, with the 200 we take the even higher price so that we don't have to make a recalculation. In other words, highly individual, actually, how we bill. But in any case, we are checking whether we need additional billing or whether we are going to invoice for the future.

Exactly, then we have now optimized the process in this way. We used to download the invoice in Lex Office and then send it manually by e-mail. In the meantime, we send directly out of Lex Office. This means that when the invoice is created, there is a four-eyes principle. We'll take another look at it together, everything fits.

We have entered the VAT number and all customer data.

That's often missing in Lex Office. So we enter all customer data into Lex Office.

And then we send the invoice directly to the customer via Lex Office,

to the e-mail address stored in Lex Office. And then we always have to compare our customer table with the data in Lex Office. Then we send the invoice.

Then, of course, it may be that a customer somehow complains,

Because we somehow settled for something that he doesn't understand or something. Then, of course, we'll try to explain it first. If we have made a mistake, then of course we adjust it in a restrictive way. But as a rule, payment is made after a certain period of time. We have, I think, 30 days as a payment term. This is also stated in the software license terms. If these days have passed, there are still payment reminders. We then send them out manually.

This means that every time we have this invoice cycle again, we check there are open invoices and then send out payment reminders.

And I think we're going to send out two payment reminders.

And in the last instance we have to admonish or think of something else or cancel the customer if they don't want to pay.

A: Okay. So, how many reminders are there and when is it terminated?

Is there a hard and fast rule?

B: No, individually.

So, we'll definitely send out two payment reminders.

And then we start admonishing. And yes, after the first or second reminder we terminate. But fortunately, this has not happened so far.

So, after the payment reminders, we were already...

Ah, yes, there was an idea. Once, we simply terminated a customer.

He just didn't answer at all. Then we quit and just wrote off the instance.

A: Okay.

This means that you always have to log in to your bank account and see what transfers came in and quasi...

B: Exactly, Lex-Office also does that automatically.

That's the advantage, all the invoices are in there. This is linked to the bank account. This means that it will be retrieved on a regular basis even then.

And then we see which bills have been paid and which have not.

A: Okay, but you'll still have to set the payment reminder manually.

B: We do that manually, exactly.

So, we see, in Lex-Office there is then a list with 30 days overdue, 60 days overdue. And according to the list, we then look, okay, what are our oldest invoices? And then we warn them. Or remember first.

A: Maybe it's not more common, so SEPA load mandate doesn't exist, or how?

B: There isn't yet. But also... Nope, a customer asked for it.

The rest of the companies are actually fine with it.

Or in B2B, it is more common for large corporations,<sup>ddd145</sup>  
that this is not simply debited, but transferred.

That is to say, in the case of companies

The process suits large companies like this. Now with the SaaS version, which is now being rolled out, it should of course be the case in the future that you can store credit card or direct debit or similar, so that it is automatically debited.

But we always bill for 12 months.

In advance. So it's like a small loan, you could say a little bit.

Then a sum of money comes together. Then it's worth the effort that we send an invoice and transfer it. This means that we don't have to do it every month for all x 100 customers, but we do it once a year in front of the customer. Then the effort is as low as possible.

A: With recalculation, if you have to do a recalculation,

Then it's kind of unfortunate if you've already deducted everything, isn't it?

And then actually have to recalculate again.

So automatically deducted and then you would have to do it again

Pour something out again and so on. Giving that back, however.

B: That's why we look at the customers once a year

and calculate what he has to pay.

A: And for the SaaS version, it would be a monthly bill

or monthly payment?

B: That's right. Current idea, monthly payment.

Yes, but unfortunately we are not there yet.

A: What about the SaaS story? Have you already planned in any way how you are going to restructure yourself or something?

Or do you design processes differently?

B: So it's probably going to be two-even.

So the processes that you have now, they're going to confess like that.

Maybe one or the other will be tweaked a bit.

But there will probably be two systems.

In other words, the customers, or I would say, the smaller customers,

they can just use the SaaS version

and the larger customers stick with the manual process.

That's just the thought that the smaller ones are just ripped off with it.



They are then also d'accord or find it better to bill monthly.

And the big ones, they always have the bills in years anyway and annual orders, which we will handle manually.

And they will also be completely separate systems.

This means that even running on a different server is completely separate.

And right now all the features are still being prepared, that everything can also be done in self-service.

The map editor is being developed diligently, that everything can be done by yourself and so on.

So it's just a lot of preparatory measures, that can only be implemented before we can roll out the whole thing like this.

A: Anything else about the invoicing process, invoicing, payments?

B: At the end, we document again in the customer document, What we then billed and why and how.

In some cases, we just have to be able to justify it.

That's why we document this accordingly in the customer table.

We have sent the invoice to XY and we have the number of objects on, this and that is increased or less billed for this reason.

So we'll just document that at the end.

And also document when the last invoice was issued and when the next invoice has to be issued, so that you can filter for it again next year.

So what we want to change in the near future, is that we're trying out serial invoices in Lex Office.

This means that we create a template for a customer, so to speak, the invoice would then automatically pop up in Lex Office in a year.

But we still have to look at the bill because the number of objects changes.

It just saves us the memory in the sense that

that we can just make sure that it really pops up  
and we don't have to look at the table ourselves.

So we're still trying to optimize that, but it's not implemented yet.

A: That you can now link Nova to Lex Office and then automatically harass the objects?

B: This is definitely a requested feature, will come. At the latest probably with the SaaS version, that you have a better link, also somehow the customer data, that it is also somehow synchronized more cleanly.

Because we now have kind of different locations, Hubspot has data there, in the customer table in Nova.

And you just have to synchronize it cleanly somehow.

But yes, it would be boring if everything was perfect.

Notice

A: Yes, that's right. Do you want to include the termination as well?

B: What about your timing? So there's still room for it, right?

A: Yes, yes, so I can think about it then, but... If you think that's what rounds it all off?

B: yes, um, exactly. Well, then I'll tell you a few words about it, but I think that's relatively self-explanatory. It's not that complicated. This means that a customer cancels or a trial license expires. In some cases, we conclude test licenses that automatically expire after three months. In other words, you have to, or we treat it like a termination, because after that the customer is gone. In other words, the customer comes in. The notice comes in. We then ask the customer again, hey, what are the reasons why they cancel? So it's just that we're evolving. Let's ask what the reason is. And we then confirm the termination date and inform the customer when the data will be deleted. Then we document in the customer document that the customer has just canceled. And currently, the process is such that I am informed and I then enter an event in the calendar, yes, a to-do, so to speak, to archive the customer. For example, if someone has now cancelled at the end of August, then I enter on August 31 in the calendar, yes, instance XY, archive or delete. And then on that day, at the end of the month, I will then delete according to these customers in Nova. However, we will not, or we will not, inform the customer afterwards, but we have already done that before and said, yes, we will confirm the termination and will delete the data on August 31st. This is our confirmation. And after that, everything is more or less automated according to our process. I am informed, I create the calendar event and then delete it accordingly on that day. Yes, so it's easy.

A: Okay, yes, sounds manageable. I can still take that in, definitely.

This also fits in with the SaaS story, that it is then simply automated and deleted.

B: Exactly, in the SaaS version, we have to automate it then

to a certain extent, probably. This means that the customer can then cancel himself and then it will simply be deleted in Nova as well. After x days, I would have said yes.

A: Okay. Well, in your opinion, these would be the most important processes for now, wouldn't they?

We also kind of have the full spectrum of daily surgeries.

B: Yes, I'm thinking about feature requests right now. Sure, that would still be in the topic On or Support. So you only have the change of plan case in support grabbed. What might still make sense is actually somehow nor a process for other cases.

Feature Request

So that is, if a customer has a problem, so that can be an operating error simply, that he has too little knowledge, then we just have to put him there Train accordingly and then say how it works.

But it is also possible that a bug report comes in, where the customer is already serving properly, but the software is faulty.

Then we have to deal with the IT department accordingly. communicate that there is a bug, i.e. a second-level support.

Or if a feature request just comes in from the customer, then we have to do it accordingly as a ticket. So these are just the other cases.

I don't know if you've added this for the sake of completeness.

want to pack in. In addition to the changes in plans, there are just the other bugs,

Feature-Request.

Also wie gesagt, Bug-Feature, Request.

Incorrect operation, i.e. and

Changes in plans. These are the four main ddd149

Support cases, I'd say.

A: Yes. I believe that with feature requests and so on, won't change much if you then switched it to SaaS.

B: No, no, no. So I think with SaaS you will, that would actually be the same  
the process will look like, yes. But in any case, for the sake of clarity, I can cover that in any case.

Yes. Exactly. It remains, so

After all, not everything always changes at  
SaaS. That's also quite good to see then, okay,  
some things change, but some things need to be

B: Yes. So with the SaaS version, we kind of want to  
remove this part of the card completely, i.e. that the customer does the whole thing himself.  
can be created. That's the goal, to make the lane completely  
abolished. Unless the customer wants to outsource it, but then he has to pay for it.

Yes.

A: So far, yes, so far it's so standard that somehow the customer is suggested, okay, send us your plans  
or whatever, is he already there from the beginning,

yes, do map editor yourself, do it yourself, then it's cheaper.

B: No, so at the moment it just costs. So we're not saying it's free.

The customer is also not yet able to do so, because no turnaround can be made yet. So the customer  
can currently place tables and such, but the initial floor plan, we have to create it in any case. In some  
cases, there are already customers who

We only let us create the floor plan and then place the tables ourselves.

A: But does it cost less or the same?

B: Same amount. So that's the one-time cost where we keep this key 50 objects  
use. This means that if someone books 50 objects, they simply have to pay for a map preparation. And  
that's just the floor plan.

A: I thought I'd read on the website at some point,  
That it kind of said, okay, load your own  
images yourself and then you can somehow rectangle...

B: That's nice, there's the website a little bit ddd150

Advanced, far ahead in terms of sales.

That's the SaaS version that's coming soon.

A: That is, there will not be an identical

Modular kit, but they simply load their own...

B: There are two variants. So in the first step, they will

be able to upload a map first. This can be any picture and then just place objects on it. And in the second step, of course, the map editor

the customer can then also draw walls and so on. But that's all still to come.

A: The software automatically detects

B: Yes, so that's a separate master's thesis in itself. That's definitely the vision of where we want to go. More comfort. But until we're ready, we'll do the initial map preparation ourselves.

A: Makes sense, makes sense, yes. Ok. If there are no other processes from your side?

B: No, I think we've covered the most important ones now.

Sure, there are...

No, but these are special processes. I believe

That's fine for now.

Ok.

A: Otherwise, there's marketing or something, but. So especially in the development area, of course, there is still some kind of

Testing and co. and the development process alone,

but I think that would jump the frame into the first time.

A: Yes, it's more about business processes.

Exactly.

I'm not necessarily trying to tie it off or like that...

B: Also eher so Customer-Cycle,

where the customer is involved in some way.

A: Exactly. Okay, good. Thank you for your time

## Appendix D Business Insights Interview with Flexopus

## Sales

- How many Sales do you do on average per month?  
15-20
- How long does it take to sign a client on average?  
3-6 months
- What does it cost on average to sign a client without marketing costs?  
1500-2000 euro (30-40 stunden) avg.
- What's the general average object amount of customers?  
150 on avg.
- What amount of objects would you consider Enterprise subscription?  
Beginning 100 objects
- How many inquiries below that amount of objects come in (percentage) per month?  
60%
- What is the average amount of personal contact points with a Lead until they sign?  
8 (gründe: angebotsverhandlung, Datenschutzverhandlung, Nachfragen, Möchten persönlichen Kontakt)
- What's the conversion rate of customers that you send a YouTube video compared to having a demo call with them?  
Very Rare (not measurable)

## Onboarding

- How long does the onboarding process take?  
5-10 Werktage (instanz schlüsselfertig übergeben) (beim Kunden: nochmal 2- 4 wochen)
- How many human resources go into the onboarding process?  
8-10h
- Do you receive complaints about onboarding Durations?  
No
- Do you get comments about map creation procedures?  
Yes, about doing it themselves, but get demotivated when they see it is a lot of work  
Option 1. Must buy , option 2: upload yourself → effect on customer satisfaction

## Customer Service

- How many human resources fall into the customer service process of a customer with an object amount below an enterprise subscription?  
8, (larger customers takes longer than 10, rather 15-20 hours)
- Are there complaints about customer service response times?  
No

## Invoicing

- How many human resources fall into the monthly invoicing?  
50 hours

## Termination

- How many human resources fall into the Termination process?  
(4h, for avg. 3-4 terminations per month)

What's the hourly average cost for human resources?  
€50 per hour



## Appendix E Expert Interview Transcripts

### E.1 Expert 1

## Transcript Expert 1

00:00:02 Speaker A

OK, started well. First of all, thank you again.

00:00:07 Speaker A

I'm doing research at the University of Utrecht and I focus on the business process based transformation from like software. As a product companies to software as a service companies with the help of business process modeling.

00:00:20 Speaker A

And BPMN in in my case I don't know if you know a bit about it.

00:00:24 Speaker A

About modelling languages.

00:00:27 Speaker A

But yeah, that's basically what I'm doing.

00:00:30

UM.

00:00:31 Speaker A

Wait, I could also invite you to the.

00:00:36 Speaker A

The question cut the look that I have.

00:00:38 Speaker A

If you tell me your e-mail address then you can just read with me.

00:00:47 Expert 1

I can share the.

00:00:47 Expert 1

E-mail address please. Yeah.

00:00:49 Speaker A

ddd156

It's something like [expert name], right? What is it?

00:00:58

OK, it's [expert name] at.

00:01:01 Speaker A

With Kay.

00:01:04 Expert 1

With the seat, [expert name] with the seat tech.

00:01:05 Speaker A

Yeah, we see.

00:01:11 Speaker A

Do you know tech OK.

00:01:19 Speaker A

OK, you should have got an e-mail soon.

00:02:09 Speaker A

Just let me know if you have it.

00:02:16 Expert 1

It's opening and I'm in it.

00:02:22 Speaker A

OK, perfect. Then let me continue.

00:02:27 Speaker A

UM, so it's about software as a product and software as a service. I think I don't have to explain you what it is right because you have experience in that.

00:02:43 Expert 1

Yes, you can ask your questions and I'll respond.

00:02:46 Speaker A

OK, perfect.

00:02:48 Speaker A

UM, so first of all, could you shortly introduce yourself and also list your experience with software as a product and or software as a service? Just so I get a?  
add157

00:02:58 Speaker A

Little overview of you.

00:03:00 Expert 1

[expert name] exterior entrepreneur. I've been at 8 different companies and has screwed up a couple of mores, so I've been able to.

00:03:10 Expert 1

Understand what works and what doesn't work, so one of them was so S company so.

00:03:13 Speaker A

OK.

00:03:15 Expert 1

I wouldn't know.

00:03:16 Expert 1

I'll be able to answer you all of.

00:03:17 Expert 1

Those questions that you have.

00:03:20 Speaker A

OK. And the your software company, do you consider it small, medium or large enterprise, the SaaS company?

00:03:26 Expert 1

We were making €4.5 million revenue, so it's medium.

00:03:30 Speaker A

OK, cool. So I will introduce you to some process patterns that could be helpful for transforming a business processes of a SaaP company to a SaaS company.

00:03:41 Speaker A

And I will just ask you how important you think they are. You can, you should rate them from one to seven with one is not essential at all or seven very essential. Then it will also be nice that you justify your answer or explain your answer.

00:03:56 Speaker A

And if you consider the process pattern to be essential, then also maybe if you have some practical knowledge about it or best practices would be really grateful if you could share it as well. And if you see any limitations in the process pattern then also feel free to share. So let's jump.

00:04:15 Speaker A

Right in the first process pattern is.

00:04:19 Speaker A

Introducing subscription based software packages on the website. So you have a transparency in pricing and the features and that you're disclosing what customers get at each price tier.

00:04:31 Expert 1

I think for I think that's very important and I will put it like between 5:00 and 6:00 depending on.

00:04:38 Expert 1

Where it is.

00:04:39 Expert 1

And I will, transparency will be 123 and then the rest will be like unlimited. So we need to have a tailored solution with the salesperson that's going to be enterprise package.

00:04:52 Expert 1

Those are the prices that I will recommend.

00:04:55 Speaker A

OK, OK. So that also gets into the next process pattern, which is to also have to possibility to offer like enterprise package with hands on work. So that means like giving personalized contact throughout the customer journey from sales to like customer service and everything.

00:05:14 Speaker A

You said that what wasn't that important or also important?

00:05:18 Expert 1

We know it's absolutely important. It depends on how big the company is and how tailored it goes. So if you are startup team need to start up package.

00:05:25 Expert 1

If you are.

00:05:26 Expert 1

Mid mid level company that you will need mid level then if you go enterprise then you will need to have a different packaging because.

00:05:32 Expert 1

It's all tailor made, depending on how many employees, what kind.

00:05:35 Expert 1

ddd159

Of service you.

00:05:35 Expert 1

Need what? Other things? And it's not.

00:05:38 Expert 1

You cannot standardize those.

00:05:40 Speaker A

Yeah. So you think it's?

00:05:41 Expert 1

And then you and then you can you can learn.

00:05:43 Expert 1

From your customers.

00:05:43 Speaker A

Too. So every SRS company should have that option on their website as a package to also have an entry.

00:05:52 Speaker A

With like everything flexible.

00:05:55 Speaker A

To offer.

00:05:57 Expert 1

Yes indeed.

00:05:57 Speaker A

OK, cool.

00:06:02 Speaker A

Then the introduction of a subscription management tool, which is like a central hub for managing all subscription related activities including the sales onboarding a customer changes in the in the subscription termination of the subscription and also the payments.

00:06:21 Expert 1

And is this for the seller or for the buyer?

00:06:25 Speaker A

Now we're talking about the transformation into a SIS company as a vendor. So you sell your SIS services or your software before you sold it as like boxed software. So it's all about the software vendor and my my thesis.

00:06:33

OK.

00:06:42 Speaker A

How they can transition to offer?

00:06:43 Expert 1

That that means that there is an admin management tool for the seller to be able to manage your customers. That's this way you're saying is that correct?

00:06:50 Speaker A

Yeah, so users subscribe on your website to your different packages and then you introduce a subscription management tool so that it's automated for example.

00:07:02 Expert 1

Yeah. So they have basically full responsibility on who they give access and to whom they give the licensing to be able to manage.

00:07:10 Expert 1

Yes. Yeah, that's absolutely. You need it because that way you will get, you're going to be keeping the responsibility at the customer itself. So you don't have to manage everything from your bank council. Operationally. It's smart thing to do. You delegate and you give the responsibility for them. But when shifts event, you need to be having having a support team to be able to fix it.

00:07:31 Expert 1

Operationally, it's smart to have to delegate it.

00:07:34 Speaker A

OK, cool. Then the next point is introducing an automatic payment to. Because I know from some companies that they I'm working close together with one where they still send their invoices manually. They check their contracts yearly and then adjust the invoice based on the usage of the user.

00:07:54 Speaker A

And then create those invoices manually and check the bank account. If the payments came in so.

00:08:00 Speaker A

Or the introduction of an automatic payment tool. Do you think? UM, it's helpful for seamless billing and payment processing and the collection of then the subscription fees?

00:08:11 Expert 1

I think it's necessary to have everything run properly because as a business you want to have everything automated so that you can focus on the NMR monthly recurring revenue for a seller and for the buyer. In this case, it's also automated so that you don't have to every time have the person to.

00:08:31 Expert 1

Because every time there is delayed, every time there is done manually.

00:08:35 Expert 1

The hours that you spent on accountant or or bookkeeper to be able to manage that that cost more money at the time.

00:08:43 Speaker A

So if you want to give a number for that.

00:08:48 Expert 1

I will say seven of seven. It is necessary to.

00:08:51 Speaker A

Have it. OK, well, OK, cool.

00:08:55 Speaker A

Then, when we're already talking about different systems, establishing interconnection between systems and tools. So we said that payment tool, subscription management tool, but also CRM tools or the database itself where all the information is saved.

00:09:10 Speaker A

Or all the customer information and also the application itself. The SAAS application. All of these connected with each other. Is it worth it? Does it make sense and what's your take on that?

00:09:27

I do not.

00:09:27 Expert 1

Understand the question very well so.

00:09:29 Expert 1

What I'd like to.

00:09:34 Expert 1

Used to what?

00:09:36 Speaker A

UM for?

00:09:37 Speaker A

ddd162

For the business processes for the automation of business processes.

00:09:46 Expert 1



I would like to skip this one for a second so I can think clearly and let's go to the next question and I'll come back to this one.

00:09:52 Speaker A

Yep, OK, no worries.

00:09:53 Expert 1

Certain we don't waste too.

00:09:54 Expert 1

Much time.

00:09:58 Speaker A

Yeah. Next question is introducing an onboarding area onboarding process in a in the application with a step by step self-service guided process.

00:10:10 Expert 1

I think generally speaking documentation is a key of making everything automated so you don't have to waste time every time everything has to be.

00:10:18 Expert 1

Documented very clearly.

00:10:20 Expert 1

So that means if the one person has done the first time that they need to document everything step by step like this is what you do when you apply. This is what you would do the next step.

00:10:27 Expert 1

Within every person.

00:10:29 Expert 1

We say in the Netherlands and how can do to watch so which means a 5 year old person have to be able to apply and read everything.

00:10:37 Expert 1

Step by step.

00:10:38 Expert 1

ddd163

So yes, this is very important, so I'll put it around 5:00 to 6:00 and depending on because every time you can improve those things, then sometimes it's either solution. So you will need to have.

00:10:49 Expert 1

The back end solutions to be able to support last minute problems.

00:10:55

And things like that.

00:10:56 Expert 1

So it's very important.

00:10:58 Speaker A

OK.

00:11:00 Speaker A

Then introducing a customer.

00:11:02 Speaker A

Administration area for the customer themselves so that they can manage their subscription details, their payment options and also maybe terminate the contract or deactivate the cloud instance.

00:11:13 Expert 1

As I said with the as I said with the number two, I believe no. Is it #1 #3 it's the same, it's the more you make it out to make it. The more you delegate it, the more easier it becomes. Yes, the challenges. OK on the side that a person can cancel the subscription as easy possible.

00:11:30 Expert 1

But the more you give it away, the less your operational cost will increase. So it's important to have and generally speaking according to the studies that are done in 2021, a subscription model on the lower end, it takes around 7.8 months and then people will just cancel their subscription depending on how much.

00:11:50 Expert 1

Added value you have depending on the subscription itself.

00:11:55 Speaker A

OK, so low tier subscriptions get cancelled on average after eight months.

00:11:58 Expert 1

After, after seven points after 7.8 months, correct.

00:12:02 Speaker A

OK.

ddd164

00:12:03 Speaker A

Is there any research on how to avoid that?

00:12:07 Expert 1

Avoid that I think. I think the more data you save on the SAAS, the more dependent you become.

00:12:16 Expert 1

As a customer, OK.

00:12:18 Expert 1

I'll give you an example if you are only watching Netflix.

00:12:23 Expert 1

The costs are very low, but if you use Netflix for your company and then you.

00:12:26 Expert 1

Don't have tailored information for.

00:12:27 Expert 1

You then you're going to lose it.

00:12:29

Right.

00:12:30 Speaker A

So you think it's more like an upgrade to A to a higher subscription?

00:12:35 Speaker A

Then then cancelling it.

00:12:35 Expert 1

So. So at the end of the bottom line, you need to like if you have a CRM system and you upload everything in the CRM and the customer data and all the other stuff and and it's everything is in cloud, you're going to be using the cloud system as much as possible because it's already in the cloud. But if you have things on premise, then you're going to switch it.

00:12:52 Expert 1

Cancel it very easily.

00:12:57 Speaker A

OK.

ddd165

00:12:58 Speaker A

Nice. Thanks.

00:13:03 Speaker A

The introduction of a self-service customer service and where customers can make changes independently. I don't know if it's wake. I can give you an example if you want.

00:13:16 Speaker A

Yes, please. For example, room or desk sharing software. I don't know if you use it in your company, but where you upload the office plan of your your office as a site map and people who don't work every day come to work every day, just book their desks, desks there.

00:13:35 Speaker A

If there is a change in the the room outline of this outline, I know a company where the customers send their new plans or the change of one desk is there now or something like that to the customer service.

00:13:49 Speaker A

They redesigned the map and upload it again to the customer cloud instance, which takes three to four days. So just making these changes as a self-service for the the customer themselves to change it themselves as an aspect of self-service and introducing that.

00:14:10 Expert 1

That depends on the on the software as a service solution to this, so I will not recommended to every industry at all. Yes, I understand what it's office sharing. Coworking space might be at that value.

00:14:25 Expert 1

But all the other stuff then you're.

00:14:26 Expert 1

Going to make it.

00:14:27 Expert 1

Easier for people to manipulate data, so I.

00:14:31 Expert 1

Will avoid to.

00:14:31

Do that.

00:14:33 Expert 1

As a company, you will need to be able to track a simple data every time every way. It's same way. If a person changes the rules behind the scenes.

00:14:42 Expert 1

Then the data will be.

00:14:43 Expert 1

Manipulate it. That means you're not going.

00:14:45 Expert 1

To be able to create a.

00:14:46 Expert 1

Road map for as a company.

00:14:49 Speaker A

OK, so if you say the data can easily be tracked of every change the customer makes.

00:14:53 Speaker A

Then it's fine.

00:14:57 Expert 1

No, I don't. Still, I don't think so. We get at the end of the bottom.

00:15:00 Expert 1

Line the management takes a decision.

00:15:05 Expert 1

They don't take short term decisions. They take long term decisions, so anything that are that is changeable, that has a longer effect. So I will put it somewhere like very low. But again depending on the industry itself, if you're selling software like CRM system.

00:15:20 Expert 1

And you want to increase your data, etc. Then then again for sales manager they need to understand what's the pipeline. If somebody changes the date.

00:15:29 Expert 1

Then the whole pipeline changes.

00:15:33 Speaker A

OK.

00:15:33 Expert 1

And HR the same, hiring the same if it comes about finances is the same, but if it comes to logistics, give an example you want to change the room and the question is to you question, how often does those changes happen?

00:15:48 Speaker A

Yeah, they get.

00:15:49 Expert 1

Not that often.

00:15:51 Speaker A

I mean, they get like the company, I have insights into, they get requests. They're like a small desk sharing company. They get requests like that.

00:16:01 Speaker A

10 times a day and.

00:16:04 Expert 1

To change the data.

00:16:06 Speaker A

To change, for example, the office map where the desks are made bookable, for example, for the for the employees of that company.

00:16:13 Expert 1

Why? Why do they need to change the the?

00:16:16 Expert 1

The room is the same room, isn't it?

00:16:16

OK.

00:16:18 Speaker A

Yeah, but the desks might. There might be some new desks added. There might be desks taken out of the office and that everything has to be changed so it's accurate for the for the employees to book their desk daily or weekly, whatever.

00:16:35 Expert 1

So in my experience in all.

00:16:36 Expert 1

Of the businesses that I.

00:16:37 Expert 1

ddd168

Have I did not see the need?

00:16:39 Expert 1

Of change, especially from a customer perspective and and and it comes at the end of the bottom line, the.

00:16:45 Expert 1

Enterprise version so.

00:16:46 Expert 1

It's tailored then you.

00:16:47 Expert 1

Can have like a tailored solution.

00:16:49 Expert 1

But those are like big.

00:16:50 Expert 1

Big money involved. You don't want to make, you don't want to make on the lower revenue, which means, let's say, if they're paying €100 a month and that they want to.

00:16:59 Expert 1

Change every time.

00:16:59 Expert 1

Everything that's going to be operational, sorry for my friends, but they need to ask.

00:17:05 Expert 1

So you want to reduce as much as possible.

00:17:07 Expert 1

So a given.

00:17:08 Expert 1

Example, there's the reason you have. When you go to a theater, you have three prices.

00:17:11 Expert 1

For a popcorn.

00:17:13 Expert 1

ddd169

You have one which is small that you pay like €3.50 and then you have one which is 76, EUR 50, and then you have one that is.

00:17:20 Expert 1

€8 the.

00:17:21 Expert 1

People go buy the bigger one because they think they get.

00:17:23 Expert 1

The better price for that.

00:17:25 Expert 1

But if you start seeing to the lower one yet, we can increase it to 450. That means you need to change every time the smaller one, because people will go buy the smaller and try to change every time. But if you offer the bigger package then you say with the bigger package than the price version, you can change any time. Then you already have a person that is paid for those services.

00:17:47 Speaker A

OK.

00:17:47 Expert 1

You want to you.

00:17:48 Expert 1

Want to keep?

00:17:50 Expert 1

The smaller prices as automated as possible and have the enterprise prices because people have to pay.

00:17:57 Expert 1

For the services.

00:17:58 Expert 1

They can. You can make it manual.

00:18:00 Speaker A

OK. Yeah. So enterprise customer uh customers get.

00:18:05 Speaker A

Personal hands on.

00:18:08 Speaker A

Start with no automation.

ddd170

00:18:09 Expert 1

Yeah, I'm giving you one example. The the smaller customers are more paying in the US than enterprise customers.



00:18:17 Speaker A

Yeah, from your experience.

00:18:19 Speaker A

Yes, OK if.

00:18:21 Expert 1

If I sell you a website solution for 3000, you're gonna be asking me a lot of different questions. But when I sell the same website but for 200,000 for an enterprise company, they don't have that many access because they know.

00:18:34 Expert 1

That it's going to be delivered.

00:18:36 Expert 1

We already have everything prepared and that's how it.

00:18:38 Expert 1

Goes that's why you see.

00:18:41 Expert 1

With the big.

00:18:42 Expert 1

Like giving an example of luxury brands, you don't see people negotiating to get services and etcetera is it's all included.

00:18:50 Expert 1

But when it comes to smaller price, people say yeah, how much warranty do we have? What happens if this happens etc etc.

00:18:58 Speaker A

OK.

00:18:58 Expert 1

I tell this to Savina every time I think in a sales call. The bigger the customer, the less the pain in the.

00:19:04 Expert 1

ddd171

\*\*\* that you have.

00:19:05 Speaker A

Hmm. OK, but makes sense when you explain it like.

00:19:08 Speaker A

That, yeah.

00:19:09 Expert 1

And at the end of the bottom line if.

00:19:11 Expert 1

You if you give an example, if you like give you an example.

00:19:17 Expert 1

OK, if you have.

00:19:20 Expert 1

Through Groupon, you've got.

00:19:21 Expert 1

A free like dinner for 30 years for two people.

00:19:25 Expert 1

When you go to a restaurant, you expect for that third years a.

00:19:27 Expert 1

Lot but when I got when I buy a ticket for €200 then I know that I'm going to get good service. I'm not going to ask about like, hey what, why didn't I get glass of water? So you always get more than than what you expect, but the the, the, the lower the.

00:19:45 Expert 1

Like the reason that I'm saying that is if you are making monthly €2000 and you have to spend 50% of your money on services that you need to get, you're going to have you're going.

00:19:55 Expert 1

To have.

00:19:55 Expert 1

A lot of headaches, but if you make 10 million and I ask you 100,000 monthly services, that's like 0.1%.

00:20:06 Expert 1

Your revenue, so then you're not gonna like even think about it. You're just gonna spend.

00:20:12 Expert 1

Yeah, it's all about the what's the balance of?

00:20:17 Expert 1

Your revenue and.

00:20:17 Expert 1

How much you're charging? So that's why I would say put three prices. That's why I say.

00:20:22 Expert 1

Focus on on scaling it up and making sure that everything is balanced.

00:20:28 Speaker A

OK. And then in your?

00:20:30 Speaker A

The idea it's like.

00:20:33 Speaker A

The goal to get more enterprise subscriptions than.

00:20:37 Speaker A

Then like low tier subscriptions, that's what you aim for.

00:20:41 Expert 1

It depends. I will always focus on 8020 rule and 80% will be on the smaller enterprise version and then 20% will be on the bigger price.

00:20:53 Speaker A

So you mean the amount of customers or the amount of revenue you gain from that?

00:20:53 Expert 1

If you have nothing.

00:20:57 Expert 1

Both both the same 80% smaller customers, 20% big customers and then the 20% of the big customers will bring you 80.

00:21:04 Expert 1

Percent of the revenue.

00:21:05 Speaker A

ddd173

Yeah. Yeah. OK.

00:21:08 Speaker A

OK.

00:21:08 Expert 1

That's that's the rule of thumb in anything.

00:21:10 Expert 1

That you collaborate you.

00:21:11 Expert 1

Have smaller ones that you can make mistakes you can learn so the bigger ones you.

00:21:15 Expert 1

Don't screw up.

00:21:16 Speaker A

OK. And so in order to get the headaches gone for the small companies, you try to automate?

00:21:24 Speaker A

Self-service as much as possible.

00:21:27 Expert 1

So generally, generally speaking, we'll say we say that we say in that we have an under stream, which is the, the, the, the river that comes water and that under stream is the smaller companies like subscription. Here it's depending on what you're selling, if you.

00:21:29 Speaker A

For those low tiers.

00:21:41 Expert 1

Help subscription. Let's let's say hypothetically for Spotify, you can have €15.00 a month. Those are for General general 80% and you're going to have hundred 200 people. But for the corporates, you're going to have.

00:21:56 Expert 1

€500 and what you're going to get, they're going to be able to create your own music and etc. And.

00:22:01 Expert 1

You only have to have.

00:22:03 Expert 1

ddd174

Twenty of those customers, you're going to be able.

00:22:05 Expert 1

To pay all of your bills.

00:22:09 Expert 1

And the on the stream you.

00:22:10 Expert 1

Have just automated everything and the top 20. You hate that solution. You make sure that they are.

00:22:20 Expert 1

They don't have.

00:22:21 Expert 1

To ask the question, but everything is arranged for them.

00:22:25 Speaker A

OK.

00:22:25 Expert 1

When something doesn't work that you have in four hours, you help their problems and you have 24/7 solutions for them. That's basically what we what I would suggest.

00:22:35 Speaker A

OK.

00:22:35 Speaker A

And that's in your mind and the most headache free solution like that this distribution.

00:22:43 Expert 1

Yes, I can.

00:22:43 Expert 1

Give you give you an.

00:22:44 Expert 1

Example. OK. Do you do you like a football club?

00:22:49 Speaker A

Have to buy.

00:22:51 Expert 1

ddd175

OK, good. So do you do you ever?

00:22:53 Expert 1

Went to buy it.

00:22:54 Speaker A

Yeah. I'm from Munich, yeah.

00:22:56 Expert 1

OK, so you went to the football games, OK? In the football games, you will have normal seats that you can buy for 30 euros, €50 maybe. Yeah. But till 2021, I had a spare lunch at I.

00:23:12 Expert 1

Has Kyoji pay €150,000?

00:23:15 Expert 1

And I have a space for.

00:23:17 Expert 1

12 people every match, so the question is.

00:23:21 Expert 1

You don't get any.

00:23:22 Expert 1

Service you you have to pay everything.

00:23:24 Expert 1

You have to.

00:23:24 Expert 1

Stand in the line. You have to go to a.

00:23:25 Expert 1

Restroom at.

00:23:26 Expert 1

The same time as everybody and you pay for.

00:23:28 Expert 1

Your drinks? Where I don't have to pay anything I have.

00:23:31 Expert 1

ddd176

A parking garage. There's there's a.

00:23:34 Expert 1

Butler helping me to go there.

00:23:36 Expert 1

And the IEX arena in this case, Byron is making the same they are making the biggest money on those answers and the the Sky lounge and the they're paying their bills. General bills on the ticket holders like you, a fanatic follower that goes to the match on on biweekly matches.

00:23:56 Expert 1

That's basically how the business is run. They make bigger.

00:23:59 Expert 1

Margins on the.

00:24:00 Expert 1

Skylock sky boxes.

00:24:01 Expert 1

Business seats and with the other ones they pay operational costs, that's basically what it is. That's how the business is run, generally speaking. So 20% is literally the top if you suddenly decide 50,000 people do not come, they're still going to be able to pay the bills because all the skyboxes are paying annual annually. So much money and they're spending so much other things like.

00:24:23 Expert 1

They bring their customers, they bring their etc. So they spend more money at the end of the line than the an average person that goes to a football.

00:24:29 Expert 1

Match and.

00:24:30 Expert 1

Drinks 10 beers in a game.

00:24:34 Speaker A

OK. That makes sense.

00:24:34 Expert 1

You most probably you're going to.

00:24:36 Expert 1

Buy 10 beers and maybe 2 Venus Schnitzels and that's.

00:24:40 Expert 1

It and and where the other ones are eating dinner, having they, they'll come like 4 hours before having the whole experience and they'll leave later on because they do business.

00:24:51 Expert 1

So subscription is the same, 80% is the.

00:24:54 Expert 1

Whole like how?

00:24:55 Expert 1

Many people is the asset. Baron can fit 80,000, so let's say so from 80,000 let's say.

00:25:01 Speaker A

Something like they think.

00:25:07 Expert 1

70,000 are the lower end subscription and then 10,000 is the basically the enterprise subscription.

00:25:17 Speaker A

OK. Yeah. Now the way you explain it.

00:25:20 Speaker A

Makes totally sense to me.

00:25:23 Speaker A

OK, cool. Thank you for that example.

00:25:26 Expert 1

You're welcome.

00:25:27 Speaker A

Yeah, thanks. Let's continue to the to the next point. Then the development of an extensive FAQ help section also on the website or in the application itself in order to reduce customer service inquiries.

00:25:45 Expert 1

I will absolutely recommend.

00:25:46 Expert 1

To have that.

00:25:48 Expert 1

ddd178

And I will also recommend to using AI.

00:25:54 Expert 1

To solve other problems.



00:25:56 Speaker A

OK, that.

00:25:57 Expert 1

And I think nowadays you can put FAQ in a chatbot kind of thing, so then you can answer.

00:26:04 Speaker A

That goes to the next.

00:26:05 Expert 1

For the for the for.

00:26:07 Expert 1

It has a feeling that it's tailored so they don't have to.

00:26:10 Expert 1

Because FAQ is, I believe is now getting to be old school because you really need to read a lot to be able to find the right answer. But if you use automated tools that have the ability to be able to, it has to be between the borders to be able to give an answer.

00:26:17 Speaker A

Yeah, yeah.

00:26:28 Expert 1

But if it churchett, let's say Chris, the names of the chachita can be hello. I'm Chris. How can I help you? And then you can ask, like, I need a question with this. OK, what are the questions? And then you have an answer that will same time and but that.

00:26:40 Expert 1

Will build also relationship with your customer.

00:26:44 Speaker A

So if you look at .9 and 1010 is the development of a website or in application chat bot for answering questions. If you have to give both numbers now comparing them from 1:00 to 7:00, what would you give each one?

00:26:58 Expert 1

Development of extensions.

ddd179

00:27:01 Expert 1

If it's a a checkpoint kind of way of collaborating to have an interactive way, then I will give it to six. But if it's like FQI will drop it to three to four or.

00:27:11 Expert 1

Something like that.

00:27:13 Speaker A

So always.

00:27:15 Expert 1

Because what happens?

00:27:15 Speaker A

Puts developed pots.

00:27:16 Expert 1

Is the time. Yeah. What what happens is majority of them people go to FAQ. They don't find the number and they want to call to a customer service.

00:27:24 Speaker A

Yeah, that's more work.

00:27:25 Expert 1

And then and then.

00:27:26 Expert 1

If you see the customer service.

00:27:30 Expert 1

Peak moments is between 9:00 and 11:00. There is a huge peak, and then between 11:00 and 4:00 there is nothing. And then at the end of.

00:27:36 Expert 1

The day there is another peak.

00:27:42 Expert 1

Development of a website application checkpoint that's already answered my question.

00:27:47 Speaker A

Yeah, yeah.

ddd180

00:27:48 Speaker A

Yeah. OK, then that's that's the 6th.

00:27:50 Expert 1

I think I think FQ is getting old. I struggle a lot when I when I have.

00:27:56 Expert 1

Like a very.

00:27:56 Expert 1

Clear question that I have that I.

00:27:58 Expert 1

Do want to fix and.

00:27:59 Expert 1

I need to.

00:27:59 Expert 1

Go to FAQ or I will be frustrated.

00:28:02 Speaker A

Yeah, you have to read a lot.

00:28:03 Expert 1

And I tried to send an e-mail and etcetera, etcetera. And then and I will respond is angry because you are paying for services and you want to.

00:28:11 Expert 1

Have an answer as quickly.

00:28:12

As possible, yeah.

00:28:13 Expert 1

So for the lower end I.

00:28:14 Expert 1

Would use chat box.

00:28:17 Expert 1

For higher end I.

ddd181

00:28:18 Expert 1

Will add a personal person that you can use.

00:28:21 Speaker A

OK.

00:28:23 Speaker A

So also for interested parties who are not yet subscribed also chatbot or.

00:28:29 Expert 1

Yeah, I mean.

00:28:29

Is there?

00:28:29 Expert 1

I got one of my customers. What?

00:28:30 Expert 1

We have done a couple.

00:28:31 Expert 1

Of years ago is.

00:28:33 Expert 1

When a person calls the customer service, it doesn't matter if they're a customer or another customer they're calling when it's a peak moment, they have an option. They say do you want to talk?

00:28:41 Expert 1

To chat bots, yes or no, and the younger generation under the thirty they choose automatically.

00:28:47 Expert 1

To talk with the checkbook.

00:28:49 Expert 1

And the checkbook was literally as our voice. It doesn't sound very as a computer and was able to answer the majority of the question like I I lost my pin number or I need to change my phone number. Or how do I?

00:29:00 Expert 1

Do this, etcetera will.

ddd182

00:29:01 Expert 1

Be able to help but the.

00:29:02 Expert 1

Older generation. I'm talking on the 40.

00:29:04 Expert 1

Five plus they.

00:29:05 Expert 1

Prefer to talk to a.

00:29:08 Expert 1

And real human. But the bottom line, what we saw in the checkbook was much faster, and people were much more happier at the end results.

00:29:19 Speaker A

OK. Yeah, that's also what I thought. OK, cool.

00:29:24 Speaker A

Thanks for the insights.

00:29:24 Expert 1

If you sell it in Germany, it's like in Germany. Everybody wants to talk to a human.

00:29:31 Expert 1

Yeah, and Germany is.

00:29:31 Speaker A

You think there's difference in countries?

00:29:32 Expert 1

Like lacking a lot of in in digitalization world.

00:29:36 Expert 1

Like German companies, majority of them are seven years behind the Dutch companies and cloud services.

00:29:42 Expert 1

I know I'm a member of German Chamber of Commerce like 90% of the German companies, they still use paperwork, they don't have cloud services.

00:29:46 Speaker A

OK.

ddd183

00:29:54 Expert 1

And and they say don't change. The winning team. Don't.

00:29:57 Expert 1

Change that, that that, that's.

00:29:59 Expert 1

It's not broken.

00:30:02 Expert 1

So if you.

00:30:02 Expert 1

Want to help a lot of German companies? Then you're going to be able to scale up them, but again, you are German. You know how long it takes to.

00:30:03 Speaker A

Probably wrong.

00:30:09 Expert 1

Close the deal in German. It's longer than in Netherlands.

00:30:13 Speaker A

Well, I'm not. I'm not closing deals myself yet. I'm just seeing in a in a software company how they're doing it.

00:30:22 Speaker A

They have their software on the cloud, but all the business processes behind which we dove into now also build our.

00:30:30 Speaker A

Nothing's automated customer service is still person to person for small or enterprise or bigger companies. Yeah, everything is not really automated there.

00:30:42 Expert 1

You you can save.

00:30:44 Expert 1

A lot of because at the end of the bottom line, the biggest cost of every company is.

00:30:50 Speaker A

Yeah, yeah.

ddd184

00:30:52 Expert 1

You need to pay a lot of turnover of having employees in the company, so if you can ask, maybe you can increase already your your annual revenue by 20% just by transmitting it simplest things and if you automate it.

00:31:05 Expert 1

Properly, almost everything. Then you can increase it to.

00:31:08 Expert 1

40% on average.

00:31:10 Speaker A

Yeah. Yeah. I mean, they gave me some numbers of how long every process takes and what kind of human resource cost is involved. And it's like a lot the way they do it.

00:31:22 Speaker A

And I think it would change a lot.

00:31:23 Expert 1

I mean I.

00:31:24 Expert 1

Mean if you. If you just generally if you just generally let's say you have a normal data entry person that costs you let's say have practically 2500 US €2500 a monthly salary, so.

00:31:40 Expert 1

Totally it's working like around 50K and.

00:31:44 Expert 1

And if you can automate that, yeah, you already saved 50K without any problems and you can use that for having employee parties. You can use to to use other new automated tools. You can use it for this for the owners of the company to go on holiday twice a year extra with your family.

00:32:03 Expert 1

Just by alternating just one simple one simple process.

00:32:06 Speaker A

Yeah, I have one side question because I'm really interested in one aspect of processes, which is RPA like robotic process automation, you think, UM, that's an important part. Uh, for the future to in, in a.

00:32:23 Speaker A

Have robotic process automation kind of paths in in your company.

00:32:32 Expert 1

I think generally speaking, robotic automation is like distribution.

00:32:39 Expert 1

You distribute things faster.

00:32:41 Expert 1

The faster you can distribute, the more you can operationally manage.

00:32:47 Expert 1

As a human being, you can go as far as I give you an example, the the car industry became big because they automated 90% of the.

00:32:56 Expert 1

Yeah, the the first one that did was Henry Ford.

00:33:00 Expert 1

Had an automation assembly machine thing and went like let's say 100 cars a week where normally you a a factory could do 2 cars a week.

00:33:10 Expert 1

And because you ultimately you standardize certain things, you can go much faster. You can you can build it. Yes. On the flip side of it, that means an individual person is not going to be able to make it tailor made.

00:33:20 Expert 1

Solution I give you an example.

00:33:23 Expert 1

If you want to buy a Lamborghini Urus.

00:33:27 Expert 1

Which is nowadays the German company. The older machines in it, etc.

00:33:31 Expert 1

Or all from Audi.

00:33:35 Expert 1

Because it's automated. Because it's standardized and they just put a different.

00:33:38 Speaker A

Yeah, yeah. And sell it to way higher.

ddd186

00:33:38 Expert 1

Label on it.

00:33:42 Expert 1



So that's that's basically what it is and that's that's what you need to explain to the company owners that they need to automate it and they can still sell it like it's tailored solution to their customers. But 90% is automated.

00:33:55 Expert 1

And that 10% will make the difference.

00:33:59 Speaker A

Yeah. OK.

00:34:01 Speaker A

Coming back to .5, I don't know if you already thought about it. Now the interconnection between the different systems and tools, which also just caters into automation of processes basically.

00:34:16 Expert 1

Yeah, the, the the thing that that hit me was such as like CRM system. I mean I can give you an example. I always say to, in this case, Sabina or anybody in the company.

00:34:25 Expert 1

Like we need to.

00:34:25 Expert 1

Take up to a.

00:34:28 Expert 1

Customer take notes, put it in a CRM system.

00:34:30 Expert 1

So that it's.

00:34:31 Expert 1

So when she is not there that somebody else can.

00:34:33 Expert 1

Pick it up.

00:34:34 Expert 1

So integration is absolutely important. So you can have centralized things, but the flip side of it is when something doesn't work, that means all the connections.

00:34:43 Expert 1

Will not work.

00:34:46 Speaker A

Yeah. I mean, if you have different systems that you that you basically also have subscriptions to and you can't interconnect them with each other, they don't have.

00:34:55 Speaker A

API connections to each other which would automate things. Then of course it's a. It's a bit of a pain and then you have work around and then it still takes a lot of.

00:35:04 Speaker A

Time. I think that's also like an interesting point to get, like all systems to work with each other, which could also be a challenge.

00:35:13 Expert 1

At the end of.

00:35:13 Expert 1

The bottom line is like the.

00:35:16 Expert 1

Like apple?

00:35:17 Expert 1

And Facebook Facebook was becoming.

00:35:19 Expert 1

Very big till last year.

00:35:22 Expert 1

Because they had a lot of data from Apple product and then Apple decided to say no, we are not going to share the data with Facebook. And then Facebook lost literally billions of U.S. dollars just in one day because Apple updated every phone with not sharing a lot of.

00:35:37 Expert 1

Data and so with that you're always dependent on other.

00:35:41 Expert 1

Companies because you are using their APIs.

ddd188

00:35:45 Expert 1

But yeah, the risk of.

00:35:48 Expert 1

Having that is much lower than just spending too much on operational costs and doing everything manually.

00:35:54 Speaker A

And also the cost is too high to develop every of the systems by yourself so that they of course fit to each other. But.

00:36:03 Expert 1

That's absolutely based. I mean, one of the things that we.

00:36:05 Expert 1

Do at hub.

00:36:06 Expert 1

And nip is we we help customers.

00:36:09 Expert 1

By doing it like fully.

00:36:11 Expert 1

Automated for themselves, that's in the beginning much bigger cost, but in the longer run it's.

00:36:16 Expert 1

Going to.

00:36:16 Expert 1

Be much cheaper. So when you use a established software from other companies in the beginning you pay a bit more, but on the longer run you're going to you pay less but on longer run.

00:36:26 Expert 1

You're going to pay more because you're always dependent.

00:36:28 Expert 1

So it's, which one do you choose?

00:36:30 Expert 1

That's basically what it is.

00:36:32 Expert 1

Or if you.

00:36:33 Expert 1

ddd189

Want to sell your company in the future? That I will highly recommend to have every IPA intellectual property in your own hands.

00:36:41 Expert 1

That way you're going to be able.

00:36:42 Expert 1

To sell the company much more value.

00:36:44 Expert 1

Than if you.

00:36:45 Expert 1

Use tools like from Amazon, Google or etc.

00:36:49 Speaker A

Mm-hmmorlikemondays.com or stuff like that As for example CRM.

00:36:52 Expert 1

So it's it's a great tool, absolutely. But if you or want to sell your company in.

00:36:57 Expert 1

The future you want to have.

00:36:59 Expert 1

An exit then your valuation will go down because you don't have the intellectual property on.

00:37:04 Expert 1

Those every data that you have uploaded on Monday.

00:37:07 Expert 1

Or asana or etcetera, etcetera.

00:37:11 Speaker A

Also also know hotspot as the.

00:37:13 Speaker A

The the software that the the desk sharing company is using for example. So yeah, those kind of softwares.

00:37:20 Expert 1

I mean, I mean I hotspot.

00:37:21 Expert 1

Is for free in.

00:37:22 Expert 1

The beginning, so you can literally just press on a button. You can download all the all the data in Excel and you can.

00:37:29 Expert 1

Upload it to.

00:37:29 Expert 1

Anywhere else, the serum is slightly different, but when it comes to monday.com operational, when it comes to other data that you want to use, if you don't want to sell.

00:37:38 Expert 1

Your company that I will highly recommend to use them.

00:37:39 Expert 1

Because it's.

00:37:40 Expert 1

You don't have to pay that much, but if you're.

00:37:42 Expert 1

Thinking about having an exit in the future?

00:37:45 Expert 1

I will recommend to you create your.

00:37:47 Expert 1

Own by using existing tools, implementing it together so you don't have to build it from scratch. But you can use.

00:37:53 Expert 1

An open source.

00:37:53 Expert 1

Ones that you can build your own.

ddd191

00:37:57 Expert 1

And I would.

00:37:58 Expert 1

Highly recommend to use with the source.

00:37:59 Expert 1

Because it's again, it's a free in the beginning until you use the.

00:38:04 Expert 1

Enterprise version you need to pay for it.

00:38:07 Speaker A

OK.

00:38:10 Speaker A

So if you have to give this a number as well, the last one.

00:38:15 Speaker A

What would it be?

00:38:16 Expert 1

Again, it depends if you want to sell it, then yes, and then I'll put it somewhere like at 3:00. And if you want to.

00:38:23 Expert 1

Not sell it.

00:38:24 Expert 1

But have it for the rest of your life. And then, like, have it to your potential children or anybody else. Then I will put it to seven because integration it just helps a lot. It saves a lot of time.

00:38:36 Speaker A

OK, whoa, cool. There was a lot of insight already.

00:38:40

I can give you an.

00:38:40 Expert 1

Example, I mean like for a.

00:38:41 Speaker A

ddd192

Yeah. OK.

00:38:42 Expert 1

Sales Rep if.

00:38:43 Expert 1

You connect your sales, navigation, LinkedIn, you hotspot and hotspot is connected to old tools on our ERP system.

00:38:53 Expert 1

Then with one button I'll be able to see what's happening and what kind of.

00:38:57 Expert 1

Decision and prepaid as.

00:38:58 Expert 1

A manager.

00:39:00 Expert 1

But if I need to ask every day to every different.

00:39:03 Expert 1

Department like how far they are.

00:39:04 Expert 1

What they're doing and etcetera, that's going to.

00:39:05 Expert 1

Just cost me a lot of time, yeah.

00:39:10 Speaker A

OK.

00:39:11 Expert 1

Using visualization tools like Tableau will help to extract a lot of data. I don't know what the what the kind of tools your company is using where you're working. I will highly recommend them to have a look on NEO 4J.

00:39:25 Expert 1

You write it down as neo4j.com and it's a visualization tool that helps extract a lot of.

00:39:33 Expert 1

Data for the.

ddd193

00:39:34 Speaker A

Future. Yeah, so far I was building data visualization sheets on Google Data studio for them. So.

00:39:42 Speaker A

Yeah, that's not the best option because we mainly.

00:39:46 Speaker A

Can use Excel Google Sheets files for that.

00:39:51 Speaker A

But yeah.

00:39:51 Expert 1

But you can use air table.

00:39:55 Speaker A

At what air table?

00:39:57 Expert 1

Air table. Yeah, that's kind of an Excel, but mixed with the visualization.

00:40:00 Expert 1

Tool for a smaller project.

00:40:02 Speaker A

OK, cool. Thanks for the thanks for the tip. I will. I was, I wrote it down.

00:40:07 Expert 1

You're welcome.

00:40:09 Expert 1

Air Table is a simple one that you can put a lot of data. It's kind of a no SQL database thing and then you can put a lot of data in it and then.

00:40:17 Expert 1

You can try to connect.

00:40:19 Expert 1

Come up with connections or create an app.

00:40:21 Expert 1

Etcetera. From the data that you have.

ddd194

00:40:24 Expert 1

But if you want to build like a bigger thing like you.

00:40:24 Speaker A



All of them.

00:40:26 Expert 1

Want to create and you need to create a drop database and from the graph and UFJ will.

00:40:30 Expert 1

Be one of the ones.

00:40:31 Expert 1

That is as a.

00:40:38 Expert 1

Basically free in the beginning and then.

00:40:40 Expert 1

You need to pay when you create an enterprise.

00:40:44 Speaker A

I think the database they use for like the that's backed back end of the application is Nova. I don't know if you heard about that.

00:40:52 Expert 1

But is, but is it in SQL database?

00:40:56 Expert 1

OK. And they can they can improve a lot by you going to no SQL. The difference is SQL is all in silos, they do not communicate with each other very easily. So with no SQL you will be able to connect to each other very easily so.

00:41:10 Expert 1

Near for Jay will.

00:41:11 Expert 1

Be one of them. MongoDB is one of them.

00:41:15 Expert 1

And and both of them.

00:41:17 Expert 1

Are free as a because it's a.

00:41:19 Expert 1

Open source, but the more.

ddd195

00:41:21 Expert 1

You you get to go increase then.

00:41:23 Expert 1

You're gonna have to.

00:41:23 Expert 1

Pay for that.

00:41:25 Expert 1

Yeah, those are literally the the ones that are easy to to.

00:41:27 Expert 1

Create tests.

00:41:30

OK.

00:41:31 Speaker A

Cool. Then I know you're a busy man, so let's get to the end. And if you have any uhm.

00:41:39 Speaker A

Insights on essential process patterns that are missed that's exclude.

00:41:45 Speaker A

The transition from box software to into the cloud server and ensuring that data security, which is of course an important part for the transformation from SAAP to SAAS. But if we exclude that.

00:41:56 Speaker A

Are there anymore process patterns that I kind of missed or that are still essential?

00:42:02 Expert 1

I mean, most probably they.

00:42:04 Expert 1

Will, but I I don't know it now by.

00:42:06 Expert 1

ddd196

Head and I think generally speaking.

00:42:10 Expert 1

What I will recommend, just go with the 20% that you already have and 80% will become by making mistakes, improving making mistakes improving and that way.

00:42:19 Expert 1

You're going to.

00:42:19 Expert 1

Be able to increase so when the customers you have let's say.

00:42:26 Expert 1

First hand customers ask them to become a beta users so that you can improve together with them and give them like 90% discounts and and get them improvement their feedback and that way you can improve with us the things that I assume now most probably users will.

00:42:42 Expert 1

Feel the pain much faster than I do.

00:42:45 Speaker A

Yeah. OK. Do you have any opinions on the future of?

00:42:53 Speaker A

SAAS service where it's going with industries going.

00:42:59 Expert 1

What I see?

00:43:00 Expert 1

Is that a lot of AI is.

00:43:01 Expert 1

Going to be implemented.

00:43:04 Expert 1

So if you do not implement in your SAAS as an AI and you're.

00:43:08 Expert 1

Going to potentially lose big markets?

ddd197

00:43:13 Expert 1

I don't want to scare companies, but it's it's either you're going to be a BlackBerry or Nokia that nobody knows anymore about you. So if you don't implement AI in your processes.

00:43:24 Expert 1

So having internal AI and external AI for your customers is very important and you can literally use a lot of companies are using that.

00:43:31 Expert 1

They connect the API and they make sure that they're boundaries so that people cannot just use it, and that's what you're going to be able to implement it. It's like, what is it? Twenty U.S. dollars.

00:43:41 Expert 1

A month you already have an AI.

00:43:43 Expert 1

You know, compare.

00:43:45 Speaker A

OK. So not just for chat bots also for like the service that in the end you offer with your software.

00:43:51 Expert 1

Just give you an example. If I call you and say, where can I find this? And you know when your employee is not, they will not know everything and that way you're going to be able to ask yourself while you're on the phone call. Where can I find this? And they will give you a couple of answers.

00:44:03 Expert 1

And you can.

00:44:04 Expert 1

Give that answer to your customer on the phone that way.

00:44:11 Expert 1

It anything both sides.

00:44:14 Speaker A

OK.

00:44:16 Speaker A

Yeah, in place for AI as the big implementation for as software in the future. OK, yeah.

00:44:22 Expert 1

Yes, I will absolutely use AI and we are still on the early stage. We're almost a year a year in with AI and.

00:44:35 Expert 1

Still, a lot of companies.

00:44:36 Expert 1

Do not use it.

00:44:37 Speaker A

Yeah, that's true. I mean, the company I do the internship in, they also don't use it at all and their software. So it's a lot of.

00:44:41

OK.

00:44:47 Expert 1

I mean, this is the easiest game I say to everybody in my company.

00:44:53 Expert 1

I'm dyslexic person, So what I need to write an e-mail that takes me a bit longer to write an e-mail. I just put it in check if you guys have an e-mail I.

00:44:59 Expert 1

Read it and then I.

00:45:00 Expert 1

Send it, it saves me.

00:45:06 Expert 1

Time of responding.

00:45:12 Speaker A

OK. And I don't have any further questions.

00:45:17 Speaker A

I don't know if you have anything to say. Feel free. Other than that, I'm going to say.

00:45:21 Speaker A

Thank you now.

00:45:22 Expert 1

No, I wish you all the best.

00:45:24 Expert 1

ddd199

With your research.

00:45:24 Expert 1

And I would love to see the results.

00:45:25 Speaker A

Thank you very much.

00:45:26 Expert 1

At the end of the line.

00:45:27 Speaker A

For sure, if you want I can send something over, probably without some company information because I have to be careful there, but I.

00:45:34 Expert 1

Understand that.

00:45:35 Speaker A

Can for sure send you some some results.

00:45:38 Speaker A

That but while I'm really impressed by the insights you could give me, I didn't expect.

00:45:43 Speaker A

It to be fair.

00:45:46 Speaker A

Because we dove really deep into some topics, which is cool.

00:45:50 Speaker A

So thank you again for that and.

00:45:52 Speaker A

Yeah. Also, all the best.

00:45:53 Expert 1

Thanks, Sabrina. Because of her I took, I took the time.

00:45:53 Speaker A

To you.

00:45:56 Speaker A

ddd200

Yeah. Also thanks of Sabino of course otherwise I think I would never.

00:46:00 Speaker A

Have get you here, but yeah, it's cool. Yeah, I'm. I'm pretty sure because I on LinkedIn it's pretty difficult to find experts.

00:46:03 Expert 1

I can guarantee you that.

00:46:07 Expert 1

From one another? Yeah. Good man. Have a wonderful day and we'll talk as soon as possible.

00:46:12 Speaker A

OK, thank you. You too.

00:46:14 Expert 1

Again, cheers.

00:46:14 Speaker A

OK. See you. Bye bye.

## E.2 Expert 2



## Transcript Expert 2 (Expert 2 = 'E')

00:00:01 A

Then I will start. Have you received my questionnaire PDF?

00:00:06 EXPERT 2

Yes indeed.

00:00:07 EXPERT 2

I'll open it.

00:00:08 A

OK, nice.

00:00:09 EXPERT 2

And then I'll let you guide me through it.

00:00:11 A

Yes, perfect. I'm so first of all, I will introduce myself a bit. I'm I'm Christian. I'm 25 and I'm at Utrecht University. I'm not Dutch though, I'm German, so unfortunately we can't talk Dutch yet. I'm not that that great in talking Dutch yet.

00:00:24 EXPERT 2

OK.

00:00:30 EXPERT 2

If you steer, if you steer, Deutsche have been speaking.

00:00:30

OK.

00:00:32 A

OK, OK.

00:00:35 A

I know many Dutch colleagues of mine are in in my studies that do know Dutch, German. So it's I think it's more common for you to learn German than we

00:00:46 A

Do Dutch because we don't learn Dutch at all, but I know a lot of Dutch speak German, so that's.

00:00:52 A

That's cool. So yeah, I'm focusing on my master thesis on the the business process based transformation from a company that offers like the outdated way of software like software as a product. It's called like that.

00:00:54

All right.

00:01:06 A

UM and who want to transition to sell software or their software they offer as software as a service.

00:01:14 A

And I'm looking at that through the the lens of uh business process modeling with the help of business process modeling BP men in my case, UMI looked at at your your YOUR company, you're big on digital transformation and process analysis and stuff like that. So I think you're.

00:01:34 A

You know what? What? What? I'm doing basically so.

00:01:38 A

Yeah. Are you familiar with the terms software as a product or the old traditional way of software and the new kind of way software as a service?

00:01:47 EXPERT 2

Vote Vote, vote. Of course. I am very old, so I've I've started my my, my professional career in in 1980, seven, 1988, last century.

00:01:59 EXPERT 2

At that time.

00:02:00 EXPERT 2

You had personal computers, so the compatible computers that was the time that people and small organizations had the opportunity to get computers into their offices, into their home set. Until then, it was only a privilege for a larger company. So at mainframes, etc.

00:02:18 EXPERT 2

So I did some programming at that time, so I developed my own software or own software for companies. So the.

00:02:26 EXPERT 2

ddd204

The traditional physically on the hard drive of the computer systems in the in the in the location of of of the companies and. And I think the next step probably was Internet in the 1990s. Then we we got.

00:02:46 EXPERT 2

Mobile communication around the year 2000.

00:02:50 EXPERT 2

And I think cloud computing was a consequence which we saw popping up 10 years later, 2010. So I've lived through the different phases.

00:02:59 EXPERT 2

Of software where originally you had to put everything on the same database, you needed to put all your data into a database and all the functionality the software was on top of that infrastructure. And I think, yeah, what?

00:03:19 EXPERT 2

What we see now is that you can.

00:03:20 EXPERT 2

And you can easily cut the software applications in different pieces which which is a composable software application platform and the model where you.

00:03:33 EXPERT 2

Say OK, I'll. I'm not going.

00:03:35 EXPERT 2

To use my own infrastructure, I'm going to.

00:03:38 E

Let's say use the software.

00:03:40 E

And the hardware from from the provider of the software which is the SaaS mode.

00:03:47 E

Is of course something which is, which is very common, I think we.

00:03:50 E

Are using one of.

00:03:50 E

The the software packages like this said Office 365 is of course a solution and then if you want to know my idea on path, there's a lot of I don't know if you also wanted software as a platform, was that also?

00:04:07 E

That was also a question in your questionnaire, so.

00:04:07

I want.

00:04:11 A

No, I'm not. I'm not talking about software as a platform itself. Like I know there's like pass like platform as a service.

00:04:18 A

IAS infrastructure as a service, as a software, as a service, and in my case software, SAP. I mean like software as a product like old ways, the old ways of.

00:04:28 E

Probably indeed, yeah.

00:04:32 A

Of software which you just perfectly described as, so I also wrote a little a little text here like what you can imagine of what I'm thinking about when I'm talking about SAA P so the software.

00:04:45 A

Is made to be sold to the users and users pay for license upfront, which allows them to use it. And I mean when you started it was probably sold on diskettes or something like that or series. And uh, it was and it was hosted on the users infrastructure. So the company who bought this software hosted it themselves, had to do.

00:04:57 E

Correct, correct, correct and CD step.

00:05:05 A

Updates themselves, which were sometimes costly and UM also you had direct sales calls. You had, uh, in person demos, everything was are then done with e-mail communication. You had to sign contracts by hand and stuff like that.

00:05:11 E

OK.

00:05:23 A

And give hands on customer service and everything like that. Yeah. So my research is based on the business processes of of, of software companies, especially sales, onboarding, customer service, invoicing and termination. So I'm not focusing on the technical part.

00:05:43 A

How to get a software into the cloud itself like not the technical part but more like the business processes and UM.

00:05:51 E

OK.

00:05:52 A

Yeah. So I'm looking more at that. And then of course, we have the SaaS software as a service with the licensing model where the software is hosted by the vendor on one server and they take care of the hosting themselves, the vendors and UM, they.

00:06:10 A

Put out uh updates frequently and.

00:06:14 A

Without cost and seamlessly. So, yeah, I I. But you know everything about that. So that's that's perfect. Seems like you're the perfect candidate for an interview like this. So OK, I think we can skip the first question you already talked about your experience of SaaS

00:06:21 E

Locally, locally.

00:06:34 A

SAP, which is profound.

00:06:37 A

So you're more kind of consultant in that sense nowadays for SAAS?

00:06:42 E

Yeah, correct.

00:06:44 E

Correct, correct. I've been, let's say let since I started my career, I I started as as a business analyst slash developer and then later on I was responsible for project. So putting software in place in organizations and coordination of that later on international projects. So I've done international projects.

00:07:06 E

From 2008 to 2018, and then I realized that the the complexity for a customer or the organizations who are making use of software, any kind of software they were suffering much more with organizing themselves to.

ddd207

00:07:26 E

To get that software in.

00:07:28 E

Then the difficulty for a provider of a software solution to get that software in place for the customer. So I've chosen to assist company companies, organizations to first of all define their question. So, their business case, what what do you want to achieve with software?

00:07:48 E

Because very often there was a mismatch or I know this is not the topic of your of your your master thesis, it's it's about the the difference of the, let's say the the use of of SaaS instead of other platform of other of other software. But it is it is a very let's say not.

00:08:07 E

All the company, all the companies, have a mix between different kinds.

00:08:13 E

Of software different.

00:08:14 E

Vendors different different ages as well, different versions. So there is there is never a company I think which is completely 100% on SaaS nowadays you.

00:08:26 A

Mean using SaaS or?

00:08:26 E

Also must know.

00:08:28 A

Yes, you mean using SaaS in their own company for inner internal processes.

00:08:35 A

What does you mean right?

00:08:36 E

Not for, not for, not for 100% or that a lot of organizations or.

00:08:38 A

OK.

00:08:41 E

ddd208

It's it's like, you know, if you live in a house and you want to rebuild a part of the house, you can still keep the old part. So it's not that you will replace the full the full house immediately. But with the SaaS solution environment. Yeah, so it you're not, you're not going to rent the house, you're going to keep a part of it and then you.

00:09:00 E

Or rent the garage or you're going to rent something which is new, that that is something that we see happening. But the customer is definitely let's say it's much more complex to.

00:09:14 E

To come up with a solution that is scalable.

00:09:19 E

And in that way and that's something.

00:09:21 E

Perhaps that I can give the SaaS solutions.

00:09:24 E

Are very often more flexible to replace than the older software solutions that the the companies in.

00:09:32 E

The in the when.

00:09:33 E

When everything was installed on their infrastructure.

00:09:36 E

They were more.

00:09:38 E

Forced to continue to use that software because first of all, they have paid for it and they've paid.

00:09:44 E

The licenses or front just like you said in the in the SAAS models you pay infrastructure and the user software on a monthly or a yearly basis and sometimes for the larger organizations you see that the.

00:09:57 E

Model is still on a contract for one or three years and it's not that it's going to be monthly. Like if we as a an individual if we subscribe to somebody usually it's monthly or a lot of organization, it's usually minimum a year and sometimes those organizations try to sell the three-year contract so that they don't lose.

00:10:18 E

ddd209

The customer on a on a monthly basis. What you what? What another advantage or yeah an advantage is now when you used to have the original software and you had 100 users and you needed an extra user then you need to buy an extra license.

00:10:34 E

Nowadays you can you could scale up the number of users by increasing or decreasing the amount of SaaS that you have. So that is that is another advantage that I that I see. But yeah, exactly what I'm doing now is it's advising organizations to ask what I say usually.

00:10:53 E

Asking the right question they need to understand to because before you can get the right answers, you first of all need to define your questions and that's what uh, what?

00:11:03 E

We basically do.

00:11:04 E

Is making sure that they that they know what they that they.

00:11:07 E

Need and then.

00:11:08 E

Of course, we have specialists who will investigate if that new solution that new software would be would connect with the existing software that remains in the organization. So it's quite complex. It's a rebuilding, remodeling kind of thing.

00:11:25 A

OK. That sounds that sounds quite cool. It's actually quite a challenge, I would say, but it in my mind, it could also be fun to figure all of that out. What could be the best solution, what fits to each other, what new S fits to the old legacy system in the company? What API connectivities are there?

00:11:44 A

To make the data flow automatically, maybe something like that, so that sounds.

00:11:48 A

Sounds cool, actually. OK, then, yeah. Then I will.

00:11:54 A

Continue to the main part, so this interview will consist of different process patterns that could be helpful for transforming the business processes of a company that offers, like the old way of software into themselves being SAAS company and transforming their business processes.

00:12:15 A

ddd210

Behind it and also their product.

00:12:18 A



So I will ask you about each of these process patterns. And so to get an first impression, I would ask you to rate them from 1:00 to 7:00, which one means that they're not really essential or not essential at all to to include them in a business transformation.

00:12:28

OK.

00:12:35 E

OK.

00:12:36 A

And then to seven, which means very essential and super important for a transformation of this kind. Then also, of course, you can explain your answer or justify your answer.

00:12:43 E

OK, good.

00:12:47 A

And then if you consider the process to be essential, then if you have some insights into it, some practical knowledge then would also be great. Also, if it's not essential and you, uh also have some insights to that for sure.

00:13:02 A

And if there are any limitations to the process patterns that might not be covered, then of course also point that out.

00:13:02 E

OK. OK, good.

00:13:11 E

OK. Just a question for you. What do you mean by process patterns? So it's this is the process of a customer involved trying to, you know involving as a as software that's the process and the pattern what you mean by process patterns?

00:13:29 A

OK, so my thesis is about: You have a company which offers their product as software as a product like the old way and all their business processes are still kind of retro. So, they do everything manually. They have salesperson they uh, they send offers by e-mail, they sign offers.

00:13:53 A

Running business processes and selling their software like the old Way. I'm not focusing though on how the software is hosted or anything like that. I'm just focusing on the business processes that I mentioned before and how this one company can transform their own business and their own business model.

00:14:36 A

And modern SAAS like software company. And it's not. Yeah, it's more. It's more focused on one software company that tries to change itself.

00:14:42 E

OK, good.

00:14:48 E

It's a software company, so they're they're building software. They have done that for probably a couple of decades.

00:14:53 A

Yeah, it's P2B.

00:14:56 A

Yeah, it's it's a.

00:14:58 E

And they want to.

00:14:59 E

They want to change their their license model and then also their software to a SaaS model and and then the last question here before we start.

00:15:07 E

To they have they already invested in developing a SaaS model because as you know, you can't just transform a standard or an old an old license based owned infrastructure based software. You need to let's say you could you could rebuild the functionality they have experience with functionality they are.

00:15:27 E

Probably targeting a specific specific industry, but they need.

00:15:32 E

To have a.

00:15:33 E

New software developed before they can decide to go to the to the SaaS offering is. Is that something that is included in your thesis as well or in your? ddd212

00:15:43 A

Yes. So that would be given that.

00:15:46 A

The software itself, which I don't focus, is already in the cloud.

00:15:52 A

But there are still sales calls and.

00:15:52 E

OK.

00:15:56 A

There are no prices listed anywhere.

00:16:00 A

Prices are only told, for example, in sales calls or demo calls, and they have to do the custom onboarding manually. Customer service is done manually. Every inquiry is answered manually, for example.

00:16:11

OK.

00:16:14 E

OK, OK.

00:16:16 A

Termination has to be done also manually of the contract. Deactivating the cloud instance. All that is done.

00:16:22 A

Manually. So that's the the starting point of the companies. Yes. OK, perfect. Perfect. Yeah. I I should have included a better explanation for that. But I hope now everything is clear.

00:16:24 E

OK.

00:16:26 E

OK, good. All right, candidate, so we can start with the third question or first process pattern.

00:16:39 A

OK.

ddd213

00:16:40 A

Then let's go to the first process pattern, which states I'm introducing subscription based software packages on the website, which means that there is transparency in pricing and features.

00:16:53 A

Disclosing also what customers get at each price tier for each subscription.

00:17:01 E

Yeah. So you say, OK, is this is this one or seven and on the scale of one to seven, yeah, how important is this?

00:17:08 E

If you consider to transform your business, it's very important. I would, I would say it's probably close to six and in this way and and.

00:17:20 E

From my experience is that if you it, it's very hard. If you have a complex software solution, then it's very hard to for for the for the main providers nowadays.

00:17:34 E

To offer A1A1 off price, I only know of one company which is called O2. I don't know if you ever heard of them O2, right? So the 00 so they have they have A1 price for all their applications. So that's the only one. The rest of of.

00:17:54 E

The offerings that I know there are.

00:17:56 E

Uh, based on how many applications or how much transactions or there there are sometimes there are still parameters where that's transparent pricing it that what you are saying here is not is not there on the website and that you cannot configure it yourself without.

00:18:16 E

Being assisted by by somebody from the company.

00:18:22 E

Do they do that deliberately? I think.

00:18:24 E

So some of them.

00:18:25 E

Want to make use of a very interesting starting. ddd214

00:18:29 E

Cost. And then once you once you want extra features or you are in a specific situation as a customer then they will add uh prices at uh at the and the specialized specific for that deal so that they can maximize the.

00:18:49 E

The income on the on.

00:18:51 E

Licenses. So the transparency I would say that it's very important. I also think that custom.

00:18:56 E

Would would very much.

00:18:57 E

Appreciate that more than because they're going.

00:19:00 E

To make their.

00:19:01 E

Calculations on on based on that, so I say it's very important. I only say that in the reality there are a lot of companies that are not using transparent pricing in their websites.

00:19:15 A

Do you have any idea why they want to do that?

00:19:19 E

Yeah, it's, it's.

00:19:20 E

Look, look at some of the of the of the web setting. You will see that you can have a basic or like you have a free version. First of all, if you can do a try out and then you have a basic feature right which limits in the number of users or else and then you automatically come to an enterprise Version and then you see get the quote, then then it's they want to calculate it because it's. I think it's very difficult to to give a a strict price and I'm saying only the only ones that know and and are of course I'm specialized in Microsoft products as well Microsoft.

00:19:56 E

Dynamics. They have a model also where they have two versions of their navision or business central and it's also clear up front. You know it's it's going to be 50 or €80 per user per month. You know that upfront and uh the only difference that it makes is that you can go for a SaaS or for the SaaS software.  
ddd215

00:20:16 E

That host it on.

00:20:17 E

Your own private clouds. You've got public and private.

00:20:20 E

Cloud they're the.

00:20:22 E

And why would you do a private cloud? Usually it's because you want to connect other software to that application and you stay in the in the. In the SAAS, in the public cloud you need to connect it to your parts of your organization which are not in the cloud. So sometimes it's just.

00:20:42 E

Because of technical reasons that you can't go for a full size solution and that you have the software.

00:20:48 E

But you need to host it yourself.

00:20:49 E

So that's a split and so it it.

00:20:51 E

It depends on.

00:20:53 E

Sometimes the the reality of the complexity of the of the customer, but it's yeah, I think it's it's also because the the supplier wants to keep wants to maximize their their income.

00:21:08 E

On on each customer so it's Dum, Dum Dum it's it's more like attracting them with a with a very interesting price. And then once they they got the attention of the customer, they can then increase the price to to maximize their income.

00:21:24 A

OK. Yeah, you already mentioned, uh, my second point would have been, which is also next to the UM packages which you disclosed the prices and features also offer enterprise package with hands on work, which means like.

00:21:42 A

Offering the software with personalized contact or contact points throughout the whole customer journey starting from sales to onboarding to customer service, whatever they need.

ddd216

00:21:52 E

Correct, correct.

00:21:53 A

As an enterprise package.

00:21:55 E

Yeah, exactly. That is, I think it depends on on the, the, the kind of company.

00:22:00 E

But there are.

00:22:02 E

Very few companies who I believe can just order software and automate their their order to cash. And you're talking about an order to cash process it right, very simple basically it's not production or something, it's just the the sales demo calls sending out emails. So you should be able to find software.

00:22:23 E

Like that. But just like I said, the fact that.

00:22:28 E

You every company has even in that very simple flow a very specific needs. And the moment you you you get out of the standard flow which everybody initially wants to stick to and that is that is definitely what they say. But in reality I haven't I haven't met.

00:22:47 E

The company that sticks 100% to the to the standard flows, so there's always enhance on.

00:22:54 E

Kind of work that is needed. What I now nowadays here is that some of the companies offer that remote so that it's that it's going to be at very low cost. But the most of them are not only hands on, but also on site, so that that they send consultants to the, to the customer.

00:23:14 E

To understand their needs and to to work with the customer.

00:23:17 E

Or for the customer to to adapt their software that it accommodates to their to their needs so so how important is that?

00:23:24 E

Number two, I think you you it depends.

00:23:28 E

ddd217

On your business?

00:23:30 E

Model if your business model is OK, I wanna sell as many as licenses as.

00:23:34 E

Possible then, then you.

00:23:37 E

Have an interest in reducing that hands on.

00:23:39 E

Work, yeah.

00:23:41 E

If the business model is OK, I want to build a long term relationship with my.

00:23:45 E

Customer and I want to be able to evolve with the with the changing needs of that customer. Then I think the hands on is going to be more applicable because in the end.

00:23:58 E

The customer will detect that he will run against potential problems in in the standard solution, and if if he knows already that you have that hands on work, it will do so. I would say if this for.

00:24:10 E

The importance I would.

00:24:11 E

Give I would give this a six as well in the importance of having this in in your organization.

00:24:18 E

Again, there's a.

00:24:18 E

Lot of a lot of companies will pretend.

00:24:21 E

That they just want to be remote and scalable, scalable, wise. It's interesting to to just add another user and and then you only have something like an administration that will keep track of the number of users. The CSP the the customer based.

00:24:41 E

ddd218

Why is the same model? But I think for me, in reality in my life and in my my career, I haven't seen that happening or being successful either. So for me that's a that's a six or A7.

00:24:54 E



For that reason, I hope that answers your question.

00:24:57 A

Yeah, of course. Just out of curiosity.

00:25:02 A

Do you think that there are companies out there who?

00:25:05 A

Probably are still a bit smaller and they really don't just want to get the solution really quick and don't want to have any personal contact with any.

00:25:14 A

Any any suppliers or do you think that's rare because they have to kind?

00:25:19

No, no, no.

00:25:19 A

Of do it.

00:25:20 E

I think it's there are there are tools on the.

00:25:22 E

Market. Who? Who?

00:25:23 E

Focus on on those and and it is more because we we used to have it as well 25 or 30 years ago there a lot of a lot of organization because there was not a.

00:25:36 E

Which offer for them for software and that's why I said I did some development, but you saw that a lot of companies also had somebody who built their own software in software applications like access or dbase and.

00:25:50 E

Stuff like that, you.

ddd219

00:25:51 E

Do it yourself packages. Basically I think that that print is is is popping up again.

00:25:57 E

By uh, specific solutions where you can, if you are handy if.

00:26:03 E

You're an handyman.

00:26:05 E

Or if you have people in in, in your organization who are familiar with with technology like this, you can do it yourself. So there is a market, but it's like you said, it's rather the small organization.

00:26:18 E

When I say small, I think it's the the five, but being 5 like between 1:00 and and 20 users for software at the moment you you get more.

00:26:29 E

You need somebody dedicated to to maintain that software solution, and if you have one person dedicated, that's very dangerous, because if that person leaves the company or or or wants to do something else, then you have a big problem because your your software system will rely on the knowledge of one person and then it does.

00:26:49 E

Makes sense. So yes, if it's, if it's just for yourself and and you're the manager, you're the boss, you're the son of of that of that company. You're in a startup, stuff like that. I think it's just like a website, for instance. You you could, you could build your own website in, in weeks or in.

00:27:10 E

In tools who will allow you to build a website very quickly, but you also know it.

00:27:16 E

If you really want to have a a decent and a very professional looking website, you then probably need to build on yourself or you have to hire a company that that will build.

00:27:25 E

It for you.

00:27:25 E

I think it's the same comparison. So the thing between I'll do it myself. Small, simple, standard procedures could be also.

00:27:36 E

ddd220

Very, very wide. Could could go into production.

00:27:39 E

But obviously that software is not your core as a company. As a customer, you do something else, you you maintain gardens for, you sell, you sell cases for smartphones. So your, your, your business is not running that software, it is doing something else.

00:27:59 E

And then I.

00:28:00 E

Think it's better to to rely on an organization who can also help you.

00:28:05 A

Hmm, OK.

00:28:08 A

Yeah, makes sense then. UM, I'm going to the next point, point #3 AM.

00:28:13 E

Yeah. Yep.

00:28:15 A

Is the introduction of a subscription management tool for the software vendor internally. So it's like a central hub for managing all subscription related activities including the sales changes to the subscription, termination of the subscription and also triggering payments for example.

00:28:33 A

So it's just all managed, let's say automatically, almost from uh on subscription management tool.

00:28:43 A

That takes care of all the subscriptions you get.

00:28:44 E

You need to have that you need to have this because otherwise you're going to spend more time on.

00:28:54 E

On maintain or building.

00:28:57 E

Right.

ddd221

00:28:57 E

Sorry, we had a small disruption. Did you, did you?

00:29:00 E

Hear what I say.

00:29:03 A

Yeah. And then take too much time on maintaining the software, right?

00:29:07 E

Yeah, exactly. Yeah. So you, you you need, you need this if you. If you really want to.

00:29:07 A

Or did you share something in between?

00:29:11 E

Go into the.

00:29:12 E

Science, this is something that should be a no brainer. You you just need to have everything in place that.

00:29:20 E

Quickly, whenever a customer increases or decreases or cancels that, first of all that invoicing happens automatically and then also the payments associated with that are done automatically. You need to do a payment just like you do when you go shopping on the web.

00:29:41 E

When you want to order something, you pay at the end of of your. When your basket is is complete and then and then.

00:29:48 E

You will get the service.

00:29:51 A

OK, so connected to that is the next point which is introducing an automatic payment tool, which is a tool for seamless billing and and payment processing which collects the subscription fees and the checks that for example the bank account dedicated dedicated bank account for incoming payments automatically.

00:30:11 A

OK, let's say.

ddd222

00:30:13 E

Same same thing. That's, that's again a no brainer. You need to have you. You can't wait for a subscription or or let's say another way of payment. You need an automatic online payment methods. There are all kinds of tools on the market there.

00:30:32 E

You got the bigger ones like at the end, but you got also in the in order to get paid dot NL there are all kinds of payment providers as they call them and the the P2 piece.

00:30:44 E

Because money. You're gonna you're gonna lose some of the of the of the of the amount of money. But but I think it's worthwhile because not getting your money is is more painful than than leaving a couple of percentage of of the payments to to a payment provider.

00:31:02 A

Do you have an idea if the the big deals of today like let's say for example the enterprise package with like a big big client you get are those deals still done the the classic way, let's say with?

00:31:16 A

UM, you write them an invoice, they send you the money with SEPA, so no like credit card. Automatic payments like that you like like that.

00:31:19 E

Correct. Yeah.

00:31:21 E

Yeah, yeah, exactly correct.

00:31:26 E

Exactly it is it is. It is the traditional you get an invoice for for those for those enterprise software. So we're talking about a couple of thousands of EUR a month. Yeah, those those will get on. But if it's a couple of hundreds of EUR, then more definitely you will see that it.

00:31:45 E

That you need to pay it with your company credit card or something to get that software in order. Yeah, correct.

00:31:52 E

Correct. So yeah, it it's it's it's, I would say you you need it depending on just like you said the amount of of your of your license model. So if you have.

00:32:02 E

Something like a €10 a month a user and you get <sup>ddd223</sup>50 users then then probably it's going to be a recurring invoice that that you need to pay. And then I think there is a possibility to to to also select the the payment method as being that you can do a bank subscription.

00:32:22 E

Bank. Bank transfer. Yeah, OK. OK.

00:32:27 A

And to the next point, also connected to the the system and tools that you could use.

00:32:32 A

And inside your software is the establishing an interconnection between the different systems and tools that you have. For example, the CR M system, the mentioned subscription management tool, the automatic payment tool, also the database you have for example, where you store all your custom information that it's.

00:32:52 A

Connected to your.

00:32:56 A

If you if you start interconnect building interconnections between all those systems, which I think you also kind of focus on in your work, your your services. So yeah.

00:33:08 E

Few seconds. Yeah. Yeah. No, I think again it it is we we.

00:33:14 E

We are using the the architecture model and I don't know if you heard.

00:33:18 E

Of it, it's Mach, say H.

00:33:24 E

And the the letters there are microservices.

00:33:28 E

Line cloud and handlers so that is that is the architecture model which allows you to first of all the the headless part means that you have a body which is the the systems of records. Usually your financial system and your logistics system they are, they are they are not moving.

00:33:48 E

Every company has to maintain a financial system and it depends, of course, on the country where you are. But that doesn't change very often. Now, on the other hand, all the other interconnections, the interfaces with the customer, etcetera.

ddd224

00:34:03 E

They could change. You could upgrade those. And just like your apps on your phone, on your smartphone, you can. You can remove an app and you can you can download another one with the same function the the iPhone or the smartphone is your is your headless system, it's your, it's your, basically your backbone.

00:34:23 E

And the apps or the microservices and automatically the fact that that you have an API and API is connecting what that the device is connecting with the with the functionalities in the software and it is it acts like it is one integrated system and then of course you got the.

00:34:42 E

The the cloud where where you just like you said where you need to be connected to the cloud to be able to use that system. So I believe that having CRM systems and and subscription management and all the payment tracking etcetera that needs to be if it's if it's a if it's an end to end process then you need to have it.

00:35:02 E

Integrated and it doesn't have to be in the same application, but you need to have it integrated so that you we are talking about APIs and etc. Yeah if you go further. If you have multiple applications you need to connect to your base system then sometimes they call that an enterprise service bus and it's the same it's.

00:35:20 E

If you have a power line and you have 11 connector for your for your laptop and you want to.

00:35:25 E

Put it in.

00:35:26 E

The power plug, but if you have a printer and you have a camera and they all need supplies, then you need a. Then you need a broader branch so the enterprise service hub is nothing else than a multiple connector kind of thing that orchestrates.

00:35:41 E

The the transfer of data between the different applications. If it's more than two applications then it will transfer the the traffic between them. So in this case CRM yeah.

00:35:52 E

But it could be that, yeah, it could be that that, that your tool is is the CRM and and the payment that that is 1 application the database for instance. I think you could you could do this and you could say OK I can have one system all the functionalities what you describe here.

00:36:12 E

ddd225

Could be one solution and then you don't need to do integration. So it all depends.

00:36:18 E

On what kind?

00:36:19 E

Of solution that you choose to do this this job, but is it important to have it? I think for another reason it's it's very much important because as you know nowadays we are.

00:36:32 E

We're looking at data.

00:36:34 E

And this so first of all, software nowadays does the job for making sure that you can follow the different steps and the different steps in your process to to guide that digitally. But more important it's at the end what what is the data that that that system has created and the insights that you get out of that data.

00:36:54 E

Are much more important because you can learn from or your system can learn from the different movements. So, for instance, if One Cup.

00:37:01 E

Summer is always changing the number of users every six months and then doesn't pay its bills then. Then you can detect the patterns and and by detecting those patterns you can you can adapt your model or you can adapt the way that that specific customer will be able to subscribe. And you can say OK, you can only subscribe if you if you pay.

00:37:24 E

Not with a with an invoice, but you will pay with with with the online payment tool for instance, because you see or you know, or the system knows this is a A customer, a type of customer that I don't trust. Could be that I'm. I'm not going to get paid for, for services and that's why I say.

00:37:39 E

The integration must be there because you want to collect all the data in the different systems and link them together to get insights from your process.

00:37:50 A

Yeah, funny that you're saying that because I got insights into a desk sharing company who offers desk sharing solutions and they.

00:38:01 A

Still check yearly invoices manually. How the the the client changed the for example the amount of objects that are bookable because they can always send and request to change the office site maps in the in the in the software to change the amount of bookable objects and like.

00:38:18 E

OK.



00:38:21 A

They're like different.

00:38:24 A

That's the alleyways for how much you pay per object, and if that is getting higher and higher or less, then the price also changes. And during a year the customer can change the objects, how much they like basically. And then they still have to check manually every time they send a new invoice.

00:38:44 A

How was the invoice one year ago? How many objects did they?

00:38:49 A

Booked or in their in their contract and how many is it now and what's what's the the pricing difference? So they have to do that for every?

00:38:57 E

Oh, OK.

00:38:59 A

Every customer, every month. So I think it's pretty similar and like when they told me that I was like, wow.

00:39:01 E

Yeah, that's that's troubling.

00:39:06 A

No, this is like taking forever, yeah.

00:39:07 E

Yeah, exactly. It goes back.

00:39:10 E

Exactly. It goes back to the to the, to the point #3 and.

00:39:16 E

Point #4 where you where you.

00:39:18 E

ddd227

Get rid of all the repetitive administration administration tasks that that should be a no brainer. If your organization wants to be successful, then all the recurring tasks try to automate them. Try to put them in the system and then you keep your hands free for everything that doesn't fit into the standard process, so you're trying not to.

00:39:40 E

Automate 100% of your of all your processes and all the different processes.

00:39:44 E

You're going to, you're going to focus on those processes that are going to take 80% of all the transactions in your company and you make sure that that works without that, anybody needs to interfere. No people's hands allowed. And then you have all the people in your organization who can focus on being creative and being adaptive to the 20% of the exceptions that happen.

00:40:05 E

In your organization, for instance, returns or somebody made a mistake in the number of subscriptions and they they can't change it back again. And they've made too much and now they want the refund.

00:40:16 E

Etcetera, all those.

00:40:17 E

Things don't put text in an automatic system. Don't don't put that in self-service because I see the the next word is the the self-service process and the guided step by step to to set up the the customer instance. I think that is that is probably another thing. It's about how you get that software installed. I presume that that point is the number six.

00:40:40 A

UM, yes. So for #5, which you already mentioned your scale number very important.

00:40:46 E

Very important. Yeah. Yeah, very important. I think idea, I would say seven there because it's probably the most important part that you have an integrated integrated system for one process.

00:40:56 A

OK. You OK then. Perfect. Let's go to #6 already.

00:41:01 A

Yeah, just let's just imagine the, the, the person responsible for booking the software for his company, he chose a subscription package on the website. He didn't go for the enterprise software enterprise package and he just created an.

00:41:17 A

ddd228

He popped in his credit card information, so he he's ready to go and now.

00:41:24 A

He's in the application itself and it says OK, your company profile is.

00:41:30 A

30% filled. You need to get to at least 70% of all the information requested so that you can roll out the software to your colleagues, to your employees so everybody can use it.

00:41:45 A

So there is the the idea of introducing onboarding area in the application which uh, guides. Let's say the administrator of the company step by step uh for setting up the customer cloud instance of the application.

00:42:02 E

Yeah, I would say six there as well. And because just like you explained it, it's it's the very non enterprise customer, it's very.

00:42:11 E

Very, let's say, straightforward and just allow him or her to to get in touch with, with, with, with, with your organization and, for instance, let them then buy a service package that they can buy a couple of service hours.

00:42:26 E

That they can.

00:42:27 E

Use and it's a that's a pay per use instead of an orchestrated.

00:42:32 E

Organized enterprise customer you can also and it's something like guided support. So if they don't.

00:42:41 E

If they don't get get everything they need with that guided step by step approach that they can then get in touch with with your organization and get help or a specific amount per an hour or for a couple of hours, etcetera. So that's what I would say there. Yeah, OK.

00:43:00 A

OK. Yeah, makes sense.

00:43:01 E

Yep, Yep.

ddd229

00:43:03 A

Then the next is the introduction of like of an admin area of the customer in the application itself, which allows the responsible person to manage your subscription details. The payment options for example or also yeah yeah cancel within the application.

00:43:19 E

You need. You need to, yeah.

00:43:22 E

Correct you you need. You need that as well. 7:00 AM and and I'm thinking of my own so.

00:43:27 E

My If I'm have got a hosting provider for my domain names and e-mail hosting etc. I think it's very it could be very awkward if I needed to get in touch with the support desk to get that stuff running. So I think you need a.

00:43:47 E

And and admin self-service environment where you can where you can play around with that that is.

00:43:55 E

Probably if if if you if you.

00:43:57 E

Look at all your questions now. Basically it it comes down to.

00:44:02 E

You are providing a software as a service. You're you're taking away the burden for that customer. So you say to the customer, you don't have to worry about infrastructure. You don't have to to worry about updates of the software and you don't have to worry about, let's say, cranking up the number of users.

00:44:21 E

For the feature set we we have a transparent price setting. If if that is the case. If that's the scenario that you want to go, then you also want an an an automatic payment automatic management automatic.

00:44:39 E

Let's say collection of data so that you can learn from all those customers because you don't know them right? You need to learn from the data that you get from the transactions or the actions that your customer do because you're you're not going to make your money on providing services to them and that's that's the enterprise customer. Yes, but the the mainstream of your customer.

00:44:59 E

You, you, you you don't know.

ddd230

00:45:00 E

Them personally, so you need to learn from their actions within the data. And just like when you're looking in Netflix series or whatever that Netflix knows with an algorithm.

00:45:11 E

What kind of what kind of person you are and what they need to present to you so that you will buy more and use more of their of their platform. I think the same applies here. So if you go to that admin that is in the line that's in line with.

00:45:23 E

All the rest so if.

00:45:24 E

You have an. If you go for.

00:45:26 E

An enterprise customer. Then you can do your manual invoicing and you can.

00:45:31 E

Help them on site. Hands on you can help them with everything because they want they're gonna pay for that, yeah.

00:45:38 E

Then you will also make money out of the the time that your people are spending on helping the customer. In the first scenario, you will lose money.

00:45:47 E

You, your, your.

00:45:48 E

Your model needs to pay, probably also for the people for the time that that your organization is going to spend to help the customer to use your product and because.

00:45:58 E

The customer in this case.

00:46:00 E

Is, is is in a mindset that that he didn't calculate extra hours to be supported and because you presented on your website or on your on your tool that the customer could do it all by itself. Yeah. So if that's this expectation then you need to take all the burden away that he can do everything.

00:46:21 E

So if you then don't allow him to do some of the ~~part~~ himself and you're gonna ask money for that, then the customer is going to be very disappointed and gonna leave probably your platform.

00:46:32 A

Yeah. So everything.

00:46:34 A

If he has any questions, even though he's he thinks he's supposed to do everything by himself and something doesn't work and he needs to.

00:46:41 A

Ask support and they probably might charge him for an extra hour.

00:46:46 A

Then he's going to be angry, let's say, OK.

00:46:49 E

Could be. Yeah, exactly. It's not going to be because you're it's all about managing expectations. If you if you go in with with the message, OK, use our SaaS software and then we we'll take all the burden out of your hands and and it's easy like 123. You just have to follow a.

00:47:05 E

Wizard and and off.

00:47:06 E

You go if it's not the case, then then you probably will. Will not only lose that customer, but you will also get negative publicity and cutting the end mean that your your, your product, your platform is not going to be used. So be be clear upfront that it's everything you need to be all that way. And so if I look at that admin part at #7.

00:47:27 E

You need seven there. If you got the introduction of the self-service customer existing that make changes independently. Same again yeah if you if you.

00:47:36 E

Go for the.

00:47:36 E

Customer where you say I I'm I made my product in that way so that that customer can.

00:47:44 E

That smart customer can do everything by himself. Then you need to make sure that that is working as well. So then you need to have that self-service as well. I think in that case you can also include intelligent chat bots to help to give customer service and and you remember the 20%.

00:48:04 E

ddd232

That assets if if your company these are probably then the exceptions.

00:48:08 E

If, if, if.

00:48:09 E

If the the frequent level questions and I'm sorry I'm I'm taking all your questions one after the other here, but if you if you go if you go to aids and you you.

00:48:15 A

That's OK.

00:48:19 E

You can't. The the customer can't make those changes independently. Then you have to have a very, very good free customer support sitting and where the system will will guide the customer. Without that the that the customer needs to contact customer service that.

00:48:39 E

It goes.

00:48:40 E

From a bots it could be a chatbot that it goes automatically to to a physical person that will help him. And if you have that one I think that then the customer will be very satisfied, although that he is not capable to do it.

00:48:55 E

Himself if he can.

00:48:56 E

Help them automatically. The customer will be happy and that's something that I learned.

00:49:00 E

So recently it's about customer satisfaction. It's not satisfaction, it's customer gratitude.

00:49:06 E

If if you.

00:49:07 E

If you have a problem as a customer and your supplier can solve that problem for you, then probably you will. You will be.

00:49:13 E

More happy with that supplier than with the. ddd233

00:49:15 E

Supplier where you didn't have a problem with.

00:49:17 A

Hmm. OK yeah.

00:49:20 A

Because then you you feel like they're there for you, and then that's even more important than just everything working fine and.

00:49:20 E

It's it's.

00:49:23 E

Exactly. Exactly.

00:49:26 E

Yeah, correct. Correct. So the fact that that it works fine and for the most customers, yes it does. But in the exceptional case where it doesn't work right, then you need to have included in your services, you need to have that that customer service. And I'm talking now for the smaller.

00:49:27 A

OK.

00:49:43 E

Do which is all customers, the enterprise customers upfront. You can you can handle them with an appropriate and with an with an an offer that is made for them based on their particular situation.

00:49:56 A

Which you can then also charge properly I guess.

00:49:59 E

Exactly. And then it's the traditional consulting model where a lot of companies nowadays and I see most of them basically, if you ask me in business applications and I think that that.

00:50:13 E

On top of my head, I think that maximum 10% of the organization would go for the I I will do it myself solution because it's just too complexity like I just explained in the beginning, it's it's quite often too too hard. Also for a small company, doesn't matter if you're a small that you're less complex and it's not because you're an enterprise, then you're more complex it it.

00:50:33 E

ddd234

Could be, but there are. There are a lot of small companies are very complex as well. So so that's that's the distinction. So and I think you need to make and and and and and enterprise and non enterprise route in your in your approach and depending on one or the other you see that your.

00:50:53 E



Questions that you ask here will be 7 or will.

00:50:56 E

Be will be.

00:50:56 E

One basically as I see these questions are for me. They are made for the do-it-yourself customers, except the number, the number 2.

00:51:11 E

And where you see the offline enterprise package and so on.

00:51:14 A

Yes. So because in my mind, if you're already doing everything kind of the old school way, then that's going to be the same way that you treat your enterprise customers, but only that the software is maybe already in the cloud, but all the processes behind it.

00:51:32 A

There still remain the same for the enterprise, just the processes for the for the subscription.

00:51:35 E

Yes, the process is yes, yeah.

00:51:41 A

Or let's say not enterprise subscription, they have to change in order.

00:51:45 A

To get that workload off in the internal processes.

00:51:48 E

Yeah. And for the enterprise customer, you also need to have a service that will monitor the performance of the systems where they will run on it, because very often an enterprise customer will not run on.

00:52:01 E

The public cloud.

00:52:02 E

ddd235

So you have that private.

00:52:03 E

Cloud which you can host as well, but you need a special.

00:52:08 E

Team that will look after the individual private class of the enterprise customers you see so.

00:52:13 E

So you haven't as.

00:52:14 E

A separate set of services that you need to take care of there as.

00:52:19 E

But there is a thing there should be a split between and. That's why also you see.

00:52:23 E

On the on the.

00:52:24 E

Most of the websites you see that there is a distinction because standard packages which are known transparent pricing. You can do it yourself. Your point is that you do it yourself. There you can do it yourself and then you get that.

00:52:38 E

Enterprise part ask ask correct quote and then you'll see that that you'll drop in the more traditional consulting and and software support and installation mode.

00:52:50 E

Oh, that's why I say I'm. I'm I I would. I would recommend you in, in, in your thesis to make a distinction upfront already that you that your in your first decision tree you will see if are you are you going to be an enterprise customer and that you then follow a different.

00:53:10 E

Roots in your in your process pattern, then if not so basically the question is, are you going to do it yourself?

00:53:18 E

Or are you going to? Are you going to be a customer that is going to need our help? And if it's that's, then I think the questions or the the, the, the numbers, the the value validation on the different questions you asked here are going to be different as well.  
ddd236

00:53:34 E

I don't want.

00:53:34

OK.

00:53:35 E

To be difficult here just to giving you some advice.

00:53:37 A

And no, it's true that I'm focusing more on the on the yeah, the subscription part of smaller companies because the yeah, because I already have the.

00:53:46 E

That's good.

00:53:49 A

I call it as is models. I don't know if it says something to you. I have the Asus models already modeled with BPMN, which is the traditional way and then also represents the enterprise way and I also.

00:54:01 A

Have that to be.

00:54:03 A

Process models already modeled, which would basically look like.

00:54:09 A

This, let's say because this is a very this is a validation interview of my of my findings.

00:54:16 A

And when I compared the as is process models and the 2B process models, I found different process patterns that are listed here which show a difference to how the fully automated version looks like.

00:54:26 E

OK, no.

00:54:30 A

Or like the the typical SAAS model compared to the the the, the, the, the old version or enterprise version let's say, but of course I didn't want to say that these are my findings because then you would have been biased probably so yeah.

00:54:47 E

But but again, if I look.

ddd237

00:54:49 E

If I look at business application optimization in in small, medium and large entry.

00:54:53 E

Prices. I don't see a lot of the the the SaaS models of self-service like you're describing them here. It's rather limited today. And I'm not saying that it could increase, but because you see there are patterns in in history as well. There are waves in in which everything.

00:55:13 E

Moves and the fact that I'm already now what?

00:55:16 E

More than 40 years for zero in in, in IT technology, I can recognize that those waves are are are coming closer but also that there is. But every new generation they they they don't know what happened before. That's of course the advantage and the disadvantage at the same time.

00:55:36 E

And they they they come up with an idea which they think is new and it's new because you're doing something else then then what you what you saw that the previous generation did software. I don't know if I explain myself correctly here but it's.

00:55:48 E

I hope you.

00:55:49 E

Can follow so and then.

00:55:50 E

You say, hey, wait a minute. Why?

00:55:51 E

Why are we applying that that old?

00:55:54 E

And I'm going to install software and I'm going to do it. Everything from my company for you. Why can't we come up with something that people are going to do it themselves? And then I'm saying, OK, this is exactly what happened 30 years ago and and we changed that model because like, I just explained, there are disadvantages.

00:56:15 E

In doing it yourself, it is like, hmm, why not let let us build a car ourselves? Why not? Why not do that? Why should we? We can buy parts and we can assemble

00:56:25 E

Mark and we will.

00:56:27 E

We'll we'll make a card, which is, which is completely as we want it. Instead of buying a Tesla or ALDI or a or a Mercedes, you know what I'm getting at and and and yeah, because you're not a car builder, you're not a software company. And if you're not, then you should be very careful.

00:56:46 E

If if you find something on the market which is completely standard, then you should do it. I don't know if you took also in consideration that nowadays you got something which is called low code or no Co.

00:57:01 E

Yeah. And that's a different story because with the local no good that you can learn to basically drag and drop your, your functionalities on on map and then you could say, OK, I've got a standard SaaS solution for a very standard processing.

00:57:19 E

An organization and the special processes.

00:57:22 E

I'll build them with the help or or with my, with my own internal team, and I will modulate some of those processes to accommodate to my to my team. So I I'll I'll stay away from customizing the SaaS model. I'm using it as it is and then you can apply.

00:57:39 E

Your model.

00:57:40 E

But everything else that doesn't fit.

00:57:42 E

In that bubble.

00:57:43 E

I will then create myself. It's. It's what they call the the built or buy strategy and you and and you need to be very smart as well. I'm I'm. I'm going to build something.

00:57:53 E

Yourself. Or am I going to buy? And if you buy you, can you?

00:57:56 E

ddd239

Could buy a standard out-of-the-box kind.

00:57:59 E

Of product where.

00:58:00 E

You do everything yourself, just like you explain there in your in your findings.

00:58:05 A

OK, so for.

00:58:06 E

I'm not giving you, am I just am I. Let's say giving you more insights or am I undermining what you said and that you should should I need to start all over again.

00:58:17 A

No, no, no, no, it's perfectly, perfectly fine. If also some of.

00:58:21 A

My or the findings I came up with through through systematic literature review and through practical insights as well into a company are are not that accurate actually. So that's also great that I can also.

00:58:33 E

Yeah. OK, let's, let's, let's, perhaps finish, finish the questions. And then because I think we need to run the the interview as well if possible. So it's also the customer service. Yeah, exactly the the number 8 #8, I think you need to have it if it's if it's going to be the self-service, yeah, deployment of that extensive.

00:58:38 A

Yeah, yes, for sure. I don't want to steal any more time.

00:58:54 E

I think with the the the the introduction of share GPT and everything with the I I think a fact is is too static. I think you need to have a more smarter way of of giving answers to those customers.

00:59:12 E

So I think jackpots or or stuff like that. So I wouldn't, I would stay away from the frequently asked questions kind of kind of section and then so I would say less important for me the development of that one I in in the other way I would I would go for number 10 where you where you put everything there, OK.

00:59:33 A

Cool. I mean, we can. We can stop now if you don't have anymore additional insights on something that I might have forgot about the whole topic and process patterns.

00:59:42 E

ddd240

I think yeah, I see that security is, is, is in your additional insights that is that is that is very important nowadays and you know there's a lot of ransomware. So the software that.

00:59:55 E

That that one wants to buy.

00:59:59 E

There needs to be a guarantee that that software is not going.

01:00:03 E

To be.

01:00:03 E

Hacked and that.

01:00:04 E

Your data is going to be secured.

01:00:07 E

Yeah, that's that's that's a given. So and I think I'll.

01:00:12 E

Give I've given.

01:00:13 E

You my additional insights and best practices already and probably throughout the different the different discussion points here, so I hope.

01:00:21 A

Yes, yes.

01:00:22 E

So I hope I.

01:00:24 E

Gave you some some things to think about.

01:00:27 E

Some extra stuff you can.

01:00:28 E

You can put in your thesis.

ddd241

01:00:30 A

Definitely something I have to also consider, which I haven't thought about yet, and which will definitely be a big part of the discussion of the results as well for sure. So it was really, really fruitful. So I'm I'm glad about that and I want to say.

01:00:42 A

Thank you. that's it from my side.

01:00:44 E

Good pleasure.

01:00:50 E

Good. OK, good luck and hope. Hope you can do something with the with the input.

01:00:52 A

Thank you very much.

01:00:55 E

That I gave.

01:00:56 A

All right. Very nice. Thank you. Have a good.

01:00:57 E

Have a very nice evening. OK. Bye. Bye. Thanks.

01:00:59 A

Bye bye.



### E.3 Expert 3

## Transcript Expert 3

00:00:03 Speaker A

Yes, you know my master's topic. I don't think I need to explain software as a product and software as a service to you anymore or you know your way around. So traditional way of software and then the modern version Software as a Service, do you know your way around?

00:00:19 Speaker A

Then I would.

00:00:20 Expert 3

I know Software as a service, but I don't know Software as a Product, so I'm just sitting on projects now.

00:00:24 Speaker A

You shall.

00:00:26 Speaker A

Software as a Product is just the traditional way of selling software that you're basically selling box software.

00:00:35 Speaker A

And just quasi the processes are also outdated that you.

00:00:38 Speaker A

Quasi sales calls make demo calls. Do everything with e-mail and so on, so that you sell software as packages, that they, that the buyer has to host the software himself on his own server.

00:00:53 Speaker A

On his own servers, that they have quasi one-time license costs and then use the software, but then usually updates can also cost.

00:01:04 Speaker A

Are and that just compared to software so service where you get a package monthly subscription pay usually the.

00:01:15 Speaker A

Hosted for you by the software distributor itself.

ddd244

00:01:19 Speaker A

And that updates are installed almost continuously and can be made available at any time, at no extra charge. So software so product rather like the old way.

00:01:31 Speaker A

For software.

00:01:34 Expert 3

Yes, so that's ne think 2 types of it once this product business if you continue to own a product.

00:01:43 Expert 3

You simply develop and sell the intermediate status of the respective product, but it can also be in the service, so someone just buys.

00:01:53 Expert 3

Services at a certain product level that is then delivered and you sell that and then the product update costs money in turn.

00:02:04 Expert 3

So the CD Software as a product I have definitely never heard before.

00:02:09 Speaker A

Yes, that's it. That's just the way it is. This traditional or outdated type of software distribution community in some literature. In some literature, it's just like this, called software support.

00:02:20 Speaker A

That's exactly why I've made it easier to share, now called it that, instead of always distributing traditional way of distributing software, it just takes a little longer.

00:02:31 Speaker A

But you know, you know roughly what is meant now.

00:02:34

Okay me.

00:02:36 Speaker A

Well, then the first question, you can just briefly introduce your company.

00:02:43 Speaker A

And also briefly describe your own experience with SAAS or the traditional type of software sales.

00:02:53 Expert 3

So should I present the whole thing in view of <sup>dd1245</sup>applied engineering?

00:02:56 Speaker A

Very roughly.

00:03:02 Speaker A

I think it's more apicore organization, though it's true.

00:03:07 Expert 3

Okay.

00:03:08 Speaker A

I'm writing the Flexibus right now and that would be kind of the case.

00:03:10 Expert 3

Yes, so at Apicore.

00:03:14 Expert 3

In 2018 we started a classic service business and that's when we decided to start.

00:03:24 Expert 3

Direct development focus and have different for our customers.

00:03:30 Expert 3

Projects in the field of composite apps are based on specifications and catalogues implemented including UIUX design, software development, maintenance.

00:03:44 Expert 3

And also the consulting services in the field of innovation management or technical consulting in principle a fully comprehensive service.

00:03:56 Expert 3

Federal Development.

00:03:58 Expert 3

That's basically what we did up to two thousand and one, no, 2022.

00:04:07 Expert 3

The projects expire this year and we have now switched to other types of software development, to product-based software development, and we are now actively linked to the company Flexibus GmbH.

00:04:22 Speaker A

Mhm OK, and would you describe your current soft software company, i.e. apicor, as a small medium or large enterprise? ddd246

00:04:34 Expert 3

Call it Small. So we never had more than 10 software developers on the team.

00:04:41 Speaker A

OK.

00:04:41 Expert 3

And that's why I think that's the best way to describe it as a company, also in terms of open sales and also in terms of the number of people.

00:04:50 Speaker A

Mhm yes makes sense okay good, then let's move on to the next part, where I'm going to introduce you to a few process patterns that could help certain business processes in the company that wants to switch from traditional software to SAAS, i.e. to the sale of the software.

00:05:12 Speaker A

And who can help to make it happen, so to speak. This business transformation. And I'm going to introduce a few positives, you.

00:05:21 Speaker A

It would be best if you then rate from 1 to 7 means they are not important for the transformation for the employee transformation and 7 means they are very, very essential for for ne yes for the transformation.

00:05:38 Speaker A

Add to SAAS.

00:05:38 Expert 3

OK or or? At this point, we are now making the switch from the service if the SAAS Company or from the so-called SAAP to SAAS.

00:05:50 Speaker A

From SAP to SAAS, so to speak. You used to distribute the software as Box Software, so you kind of have it. At that time, software was still sold physically, so to speak.

00:06:04 Speaker A

But it's also a lot about business processes, so you have sales, staff, staff, you have email, sales, or even phone sales.

00:06:15 Speaker A

If you have customer service, it takes a lot of time. You.

00:06:22 Speaker A

ddd247

Do the invoices yourself or check how the contracts are.

00:06:28 Speaker A

I did it last year and then I had to adjust everything manually, so to speak, cancellations also come in with e-mail and then you have to change everything manually, so to speak.

00:06:38 Speaker A

In other words, more or less now with regard to business processes.

00:06:43 Speaker A

Where you can also find a lot at Flexupus.

00:06:46 Speaker A

You can see how things are going at the moment.

00:06:50 Speaker A

It's relative.

00:06:50 Expert 3

Yes, that's quite blatant of 2 types of software that you can differentiate, so let's talk more about B2B software or B2C software here.

00:06:51 Speaker A

To what I just described.

00:06:58 Speaker A

B 2 B exactly.

00:07:00 Expert 3

OK.

00:07:04 Speaker A

Exactly. And then, if you have given your answer or your number, I would ask you to briefly explain why this is the case. And if a process is very, very essential for you, please let me know if there are any best practices from your experience.

00:07:24 Speaker A

And if there are any limitations for The Process Pattern, know them as well.

00:07:30

Okay.

ddd248

00:07:33 Speaker A

Okay, then I'll start with the first one.

00:07:35 Speaker A

That would be now.

00:07:38 Speaker A

The introduction of subscription-based software packages, which can then be viewed on the website, means that you are transparent in the pricing and features related to the respective packages, i.e. you explain exactly what the customer gets without being in direct contact with him.

00:08:00 Expert 3

Yes, it depends very much.

00:08:04 Expert 3

From the product.

00:08:08 Expert 3

And what exactly is being sold? I can use B to BS as a company that sells per request, have 5 banks as customers and make millions in sales, so you don't need to communicate the prices and the packages on your website.

00:08:24 Expert 3

Then there are also others who are more likely to move in a turnover in the hundreds. Of course, that's more interesting, I think.

00:08:33 Expert 3

That wouldn't be a blanket number, say OK: What is now: What is very, very important or not important at all, depends on your product.

00:08:43 Expert 3

And then. And then?

00:08:47 Expert 3

How much can you earn with a client? How many customers?

00:08:51 Expert 3

Can you tell and have at all? How big is your market?

00:08:56 Expert 3

Are you approaching banks or insurance companies, or are you going up?

00:09:02 Expert 3

ddd249

To all companies with a generic solution, in other words.

00:09:06 Speaker A

If we.

00:09:06 Expert 3

Yes, you want to take out this very classic context company, which is said to be about 50 to a hundred thousand.

00:09:18 Expert 3

It doesn't really matter. So it depends very much on the deal. Be it I think I would simply differentiate if you are in the foreigner area from the turnover.

00:09:24 Speaker A

OK.

00:09:30 Expert 3

Then you can definitely say, this is very important, that you, that you communicate the Subscription base Doctor Package, on your website, so there it would be the same.

00:09:40 Expert 3

5 in my view, so you can still sell without life, you can still continue to sell with contextes, but you can't scale.

00:09:49 Expert 3

So I think you can. No, I don't think you can make a general statement, it depends on where the company is located at the moment?

00:09:57 Expert 3

What stage is this now a scaling company is currently in a build-up phase and how big is the deal sizer is told.

00:10:06 Speaker A

Let's say it's a very large market and it's money-making and there are also a lot of small customers, but also a few large customers, let's put it this way, so the potential is very big and.

00:10:22 Speaker A

Yes, as I said, the market is large and there are also many small customers, but also a few large customers. That's how I would describe the market.

00:10:31 Speaker A

So how long still that as.

ddd250

00:10:31 Expert 3

So in Bobby free I would say under 10 00 0€ is the communication important of the plucky s and so for 10 000 grave reference per year. It can definitely be important to communicate that, we can just put a 6 on it.



00:10:49 Expert 3

Then the game sightseeing is between 10 and 50000€, then it is less important. So I would rather go with 45 and then the money is over a hundred thousand euros per company.

00:11:03 Expert 3

I would simply assume that it is rather unimportant. I'd just say 23. So you can still communicate the prices, but with a hundred thousand rich you buy completely differently than in a 3 / 4000 range.

00:11:18 Speaker A

Okay.

00:11:20 Speaker A

This also brings up the second point, that if you list these packages on the website, you can also get a.

00:11:29 Speaker A

Enterprise Package, where virtually no prices are mentioned yet.

00:11:35 Speaker A

Quasi as the last, as the last package, that this is still offered.

00:11:40 Speaker A

Personal contact, everything is somehow accompanied in the customer journey by employees from the software company who take care of it.

00:11:50 Speaker A

Exactly how important do you think it is to either introduce something like this or keep it? That way.

00:11:59 Expert 3

Believing that also depends on what kind of product it is at the end of the day.

00:12:06 Expert 3

So if for large customers it actually costs significantly more, because significantly more users and and several features can be sold. The features would also have to be explained and storytelling is also part of it, so you want to convince the customers and want them.

00:12:20 Expert 3

Collect contact details, so you don't want to give a price about the, about the, the, the.

00:12:28 Expert 3

The possible subscriptions then is it, it's it's important. I think it depends a bit on how you want to sell.

00:12:36 Expert 3

And again from that of the Dsize, i.e. in contact sales offer for a few 1000€ turnover per year.

00:12:45 Expert 3

Bin uninteressant also.

00:12:48 Expert 3

But to my product, since I want to have a potential to get 50 + 1000,00€ recording revenue per year, then it is rather more important. So I would differentiate again, can a customer pay more than 50000,00€ for me.

00:13:03 Expert 3

Then Enterprise is very important with contact sales, if not, then.

00:13:09 Expert 3

Then probably not. So.

00:13:12 Speaker A

And that's 50000 I would so ne general.

00:13:15 Expert 3

Just split the last point and say, OK, if my product can only be sold for a few 1000€ all the time, then mental price is not right at all. So I just wouldn't get right time at 23.

00:13:28 Expert 3

Then some customers will be interested in it and I think I can only get if and price customers come, then I have to offer Enterprise and there is 34 again.

00:13:38 Expert 3

Maybe even 5. And if I assume that enterprise customers with several thousand users of the software could buy, then it's just very important that enterprise vendors, I think that's again product-dependent, depending on how you look at the product range.

00:13:58 Speaker A

Okay and with you is quasi so 50000 is so benchmark for there it is worth Hanson to accompany everything of customers.

00:14:10 Speaker A

Or was it just that?

ddd252

00:14:10 Expert 3

I think yes, now you can't employ sales raps either. So you can't scale a contextual lord until you're actual.

00:14:19 Expert 3

So you have contact employees, you have the business developers very representative and the sales of representatives cost billions of hundreds of thousands of euros as a rule. However, you can also agree on a base salary plus commission agreement, i.e. 70,000 plus.

00:14:36 Expert 3

Plus up to 70,000.

00:14:40 Expert 3

Commission agreement from Leipzig and CS employees and and the company, so they would have to meet certain goals, they would also have to bring in significantly more than what they did.

00:14:53 Expert 3

Ultimately, costs when a sales employee in Germany can cost around 100 to one hundred and forty thousand.

00:15:00 Expert 3

Then I would like to tell you that a turnover of 34 can achieve five hundred thousand euros a year. And if I want to achieve that with 5000 customers, then we have to generate 100 customers. So that's 10 customers each.

00:15:16 Expert 3

What are the goals now for companies that engage in contexts and how many do they have to generate in order for context to be worthwhile at all, because it is not in the hundreds of areas, will my license revenue.

00:15:30 Expert 3

I'm actually not a B2B software, but have a very bad pricing model. But I can't make any contact first, otherwise the colleagues are just on the phone and simply can't make any sales at all, so they won't be able to generate more sales than what they actually cost and we're not talking about the additional marketing expenditure for all the ads and Co.

00:15:51 Expert 3

So actually, I have to calculate that somehow. In my opinion, a very nice guy must definitely be able to achieve at least 250 to two hundred thousand euros and that can only be done if larger DSI does it.

00:16:04 Speaker A

Mam okay ja, macht Sinn.

00:16:10 Speaker A

ddd253

OK, then let's move on to the next point.

00:16:13 Speaker A

Now it's more likely, if you assume that you just introduce these packages on the website, where you can then subscribe.

00:16:21 Speaker A

Crap, the production of subscription management tool, where you can manage it almost automatically. All activities related to the subscription of your.

00:16:33 Speaker A

Exactly who then almost automatically activates the subscription, so to speak, registers and then almost automatically initiates the various steps, who then quasi the payment, so to speak.

00:16:51 Speaker A

Tracks and so on, then finally also various contract changes or subscription changes. If you want to switch to a higher subscription now. This is then regulated via a subscription management tool, where the overview is kept and some things can also be automated.

00:17:10 Speaker A

Up to the yes to the termination of the contract, which is then also logged in the subscription management tool. Quasi.

00:17:18 Speaker A

Is depicted.

00:17:24 Expert 3

I think that's regardless of the DLC it's definitely very important.

00:17:28 Expert 3

I would definitely.

00:17:32 Expert 3

67 and that's also important with a startup that's just starting out, so I think the real app, the relevance from this point always remains high.

00:17:45 Expert 3

And must always be included in a SAAS product.

00:17:51 Expert 3

But the pain factor is different. In the beginning, you had to do this manually.

00:17:58 Expert 3

With a certain number of customers, I would say that you can still manage up to 200 customers if you have annual subscription management, so any billing in monthly billing is of course much faster, b 2 B

area I think annual billing is more likely to be the case and you can do that for a relatively long time even with manual processes with subscription management.

00:18:16

Mhm okay.

00:18:25 Expert 3

Get through, but a certain size is the manual effort too great. Error code is too big as well.

00:18:35 Expert 3

That's why management isn't done automatically.

00:18:38 Expert 3

In this case, it may well lead to hundreds of customers being billed, some of which are smaller. To whom the uncertainty of the commissioners.

00:18:53 Expert 3

To have that.

00:18:54 Expert 3

Also with our customer saw that because of the lack of subscription management.

00:19:02 Expert 3

In a way, small bills can also simply be issued. You just don't know at what time which package was booked.

00:19:08 Speaker A

Hm? Clearly genau.

00:19:11 Expert 3

Und one one one one.

00:19:13 Expert 3

Avoid unpleasant situations. You just walk away.

00:19:18 Expert 3

In the worst case, and you simply put a smaller license period in the invoice, as you call it simply ne.

00:19:26 Expert 3

ddd255

Evaluation would have been on all these issues, so it's always important to have 67. In any case, I would just say 7.

00:19:34 Speaker A

Okay.

00:19:35 Expert 3

But you can.

00:19:38 Expert 3

Dealing with a long time depending on how many customers and how many invoices would have to be issued per month, i.e. how, how, how, how that ultimately leads to a billing, Mhm.

00:19:49 Speaker A

Okay, cool, then on to the next point, it's a bit related to that.

00:19:57 Speaker A

Is it the introduction of an Automatic Payment Tool, so tool for simulation and.

00:20:06 Speaker A

The processing of payments, i.e. the subscription fees, are collected automatically. This is linked to the bank account and it automatically checks whether the subscriptions come in much and then also acts quasi dunning, right?

00:20:27 Speaker A

Finder reminders automatically.

00:20:30 Speaker A

Exactly. So it means that you move away from creating invoices and sending them out, but the payment is collected via credit card, so to speak. The subscription.

00:20:44 Expert 3

In Würzburg neither differ from the deal sides, I think.

00:20:49 Expert 3

The sum of one hundred thousand euros will never be charged by credit card. That.

00:20:53 Speaker A

OK.

00:20:55 Expert 3

It's just unrealistic and you want to avoid it. Alone mention the nasty, so who wants to do it then, can do 2000€ for the proof numbers, so every reasonable B 2 b and will also become one from the beginning.

00:21:11 Expert 3

One one, a server transfer in Germany or a direct transfer option with invoices then.

00:21:22 Expert 3

Because it's just the whole credit card plays and a different automated billing than as a credit card. You don't chase it through PayPal either. So.

00:21:34 Expert 3

I think a larger money size is just standard, that you send a direction.

00:21:39 Speaker A

Mhm, Mhm.

00:21:41 Expert 3

And you just pay the bill. However, reminders can still be automated, payment reminders can be automated, and the debiting of income can also be automated.

00:21:55 Expert 3

If I just look at our company and, and, and, I look, what are we paying for and how big are the contributions? Contributions.

00:22:04 Expert 3

Everything that goes through the credit card is usually smaller amounts.

00:22:11 Expert 3

Users per month 10 1520,00€.

00:22:16 Expert 3

If that, if it goes beyond that, then the software is actually paid per invoice.

00:22:24 Speaker A

Also from the sagst of the.

00:22:25 Expert 3

For example, I don't have any software.

00:22:26 Expert 3

Bought over 100 to 200 0.

00:22:28 Expert 3

0€ but we have already in.

ddd257

00:22:36 Expert 3

And that's where you have to deal with it, directly with the billing department. And of course.

00:22:42 Expert 3

Where to customize? How the customer wants it, so that the money finally reaches us.

00:22:48 Expert 3

So for smaller, smaller customers it is very important and so smaller it is very important that the payment is also automated. That's when I see that at 67.

00:23:01 Expert 3

For larger ones, except for payment automation by credit cards, I see 67, but I don't see it relevant that the payment itself should necessarily be collected by any credit cards and direct debits. This can still be automated by the payment tools, so the invoice number is there, then this.

00:23:26 Expert 3

Documented in the transfer that we also posted. This is also assigned and thus it is actually an ongoing, unfortunately manual accounting task.

00:23:39 Speaker A

Mhm, OK.

00:23:43 Speaker A

Then to the next point. For example, if you have all the different systems. So now it's Subscription Management Payment System, then you still have a database.

00:23:52 Speaker A

Which is often linked to the software itself or to the SAAS application itself. If you were to link all systems together. In the API interfaces and so on.

00:24:08 Speaker A

And also to get a bit more automation. Do you think that makes sense or is the effort too high or is it difficult to connect different tools from different providers with each other and that usually doesn't work out that way and then it still has.

00:24:24 Speaker A

Time-consuming workarounds or how do you see it?

00:24:28 Expert 3

Again, it depends on the product stage and on the company size.

00:24:36 Expert 3

ddd258

It's definitely important. So what's important about the 67 is that you, that you do that.

00:24:45 Expert 3

But from the product point of view, because the whole thing was automated, I didn't offer any added value for the customer. So it doesn't have automated payment processing, but that's not the thing.



00:24:58 Expert 3

There are triggers, so I didn't offer more for my clients than we wouldn't do manually. So it's going to be important, but it has to be.

00:25:09 Expert 3

It is also associated with additional development and organizational effort. You know the steps, but the resources will be product development.

00:25:20 Expert 3

Simply put on other activities. So.

00:25:25 Expert 3

Stupidly said, I can still hire one person for the accounting than as a 3 developer as.

00:25:34 Expert 3

Deal with this topic and then leave this product development behind. So speed is the be-all and end-all at SAAS companies. So I need to develop features quickly, I need to expand my product, I need to add value to my customer segment.

00:25:52 Expert 3

Automating payment processing is actually one in itself.

00:25:57 Expert 3

An administrative task, an internal administrative task.

00:26:02 Expert 3

It can.

00:26:02 Expert 3

To be more important than my product itself. If the point is simply higher. I have too many clients, I have too many invoices, I have too many.

00:26:13 Expert 3

Subsystems and internal processes that involve a lot of manual effort. Then, of course, this becomes more important than the internal one.

00:26:25 Expert 3

Internal product development, i.e. the relevance of this activity.

00:26:33 Expert 3

It's different with a company, because right now there are less than 2 to 3000000 returning revenue than with the company, because there is already a growth phase with it.

00:26:45 Expert 3

5 plus million recording revenue, so there's the duty.

00:26:51 Expert 3

You can do it, it's doable, it's also important, but it's more important things, especially in the early stages of the company.

00:27:03 Expert 3

Of course, it depends on the deal size pick up. I can't reach 3 5000000 recording revenue, if I can earn prog 100 250 to 500€ and since manually sends the invoices, then the obligation has to be done earlier, so again depends on the company Dealizer customer segment. It's always important.

00:27:25 Expert 3

But in the priority list, this can be more likely to be the second half of the to-do s at the beginning.

00:27:33 Speaker A

Okay.

00:27:36 Speaker A

Okay, then I'll move on to the next point. So imagine the customer is on the website.

00:27:41 Speaker A

Didn't opt for the Enterprise Package, but one where he can get started right away, so to speak, created an account. If yes, if it's still a small little deal, hack in a credit card right away and can start right away.

00:27:56 Speaker A

As an admin, for example, for his company.

00:28:00 Speaker A

And then has access as soon as the first payment has been made and is then in an unboarding area. Where does it say okay?

00:28:11 Speaker A

30% of your profile or company profile is filled out. Such and such steps must.

00:28:16 Speaker A

So you can roll out the software for the rest of your company or for your employees. Anyway.

00:28:26 Speaker A

That then a guided stepper step process takes place for onboarding and the customer does it in self-service mode, so to speak.

00:28:41 Expert 3

I would answer two-step. Again, the question Mhm.

00:28:46 Expert 3

First of all, the companies that offer a simple product.

00:28:51 Expert 3

And you know what it's all about. For example, a ticketing system.

00:28:58 Expert 3

A tool for that.

00:29:01 Expert 3

For booking from, from, from, from company resources or a time tracking tool.

00:29:09 Expert 3

Usually, you know exactly what you can do in a tool. What features are for me?

00:29:17 Expert 3

Since and implemented, onboarding itself is irrelevant. We can think of a time tracking tool right away, then I came, until when was I there, can I leave out exports as an administrator, I can put the times on any projects.

00:29:35 Expert 3

If standards, where everyone looks more or less identical, the good UX is more likely to happen, a huge game so that this standardized.

00:29:46 Expert 3

Or how standard is so this one.

00:29:48 Expert 3

Easy to understand.

00:29:51 Expert 3

Implemented when it comes to a more complicated tour, having with any processes. Leave it in, for example.

00:30:01 Expert 3

New York Customer Banking Process has to be with different levels of identification and automation steps, with some kind of automatic data processing, of course.

00:30:15 Expert 3

The users have to be helped, and there has to be a, a, a, a guide to explain what is happening, where do I have to click, what is it anyway?

00:30:29 Expert 3

So with standard software it's really important, with with the more complex software, it's definitely important to have an onboarding. The onboarding process can also look different, it can.

00:30:46 Expert 3

In the form of a document. It can also be a video, but it can be a step by step tutorial with click here and there in the software directly.

00:30:58 Expert 3

So at Standardfor First it's thought less important, I'd just say 3. For more complex software, 7 is definitely 7 and the reason is not.

00:31:10 Expert 3

Um and the reason is simple, if I don't explain, then I have support cases and the customers are dissatisfied, so if I don't explain the software and the customers keep asking questions.

00:31:21 Expert 3

I'm there I have to provide a guide in some way, so that they have already been sold, you notice that immediately in the support push compartment whether certain functions are self-explanatory or not and you may have to provide help material for this.

00:31:41 Speaker A

Okay.

00:31:44 Speaker A

Cool, then I'll go to the next point, though.

00:31:49 Speaker A

One, so to speak.

00:31:51 Speaker A

In its SAAS application, it then provides a customer admin area, so to speak, where an admin or whatever several admins.

00:32:02 Speaker A

About the subscription.

00:32:05 Speaker A

ddd262

The software can be used to customize different payment options or to regulate anything related to the contract or even from the application itself inside.

00:32:20 Speaker A

Who also terminate the contract. With the click of a button in the admin area in the Soft SAAS application itself.

00:32:29 Speaker A

And then you don't have to write an email anymore. OK.

00:32:31 Speaker A

Cancel the contract and so on, right?

00:32:35 Speaker A

I want to change this and that. And then they write an e-mail to the customer service, which is what I mean by admin area.

00:32:44 Expert 3

Depends on the product. In the case of a B2B software such as an SMDB Service Provider.

00:32:53 Expert 3

Yes, easy for me. Ines ships, so they are so-called Development Utility Softwares, is a one.

00:33:03 Expert 3

Yes, if you usually have one user, you don't have other different user accounts and there is no admin and normal user.

00:33:13 Expert 3

But in principle, these administrative functions would have to be independent.

00:33:19 Expert 3

And and product type. Whether that, whether this is offered directly for the respective user or that is offered for a special administrative user.

00:33:35 Expert 3

That's what everyone thinks is important that the feature be provided either.

00:33:41 Expert 3

For the standard users or for the administrative users. As I said, these are software that doesn't have any additional administrative users, but we have one user and you can do everything with it.

00:33:56 Expert 3

ddd263

Many development utilities software are actually like that.

00:33:58 Expert 3

They also use RDS Tele Services, they don't have any additional administrative users, which I don't think is good, but that's just the business that they don't offer.

00:34:16 Expert 3

Pure user is quite sufficient.

00:34:18 Speaker A

Okay.

00:34:20 Expert 3

So I would say.

00:34:25 Expert 3

It is very important that it is offered. But it's not important that it's provided with a separate user, with a separate user, so if it's here, you just have to provide the function in digital and the justification is simple again, if I don't offer that, then I have to do everything manually and the cost of the manual processes is just.

00:34:49 Expert 3

But if I sell the software to 10 customers and every customer of mine has one.

00:34:56 Expert 3

Per annum.

00:34:59 Expert 3

Then I have to do that, then I just don't want to offer an automated cancellation option, because I only have mine.

00:35:09 Expert 3

No, my company, so I want to make it as difficult as possible to make that with me.

00:35:15 Expert 3

I would like to hide all the indications of a possible termination. I also don't want to show everyone how much software costs at all, but I just want to hide my numbers and features as much as possible, but this is rather an exceptional case, so it doesn't think it's fair to consider these types of seasonal softwares in their view.

00:35:40 Speaker A

Yes, exactly, so BSHS is also a lot, so it's just about growing as much as possible. Also, I think times and as many customers as possible with little work as possible.  
ddd264

00:35:50 Speaker A

To make it possible to use the software in the acquisition process.

00:36:01 Speaker A

So that's just as a background.

00:36:04 Speaker A

Exactly. And then?

00:36:06 Speaker A

If you are already talking about the fact that as many customers as possible start using the software to buy a subscription from you.

00:36:15 Speaker A

To what extent does it make sense to introduce a self-service customer service for your SAAS software?

00:36:28 Speaker A

Which make it possible for the customer, so to speak.

00:36:32 Speaker A

To make changes independent to a certain extent, independent of quasi help from the software vendor.

00:36:41 Speaker A

And then implement it yourself.

00:36:44 Expert 3

I think that's 7. Everyone has to be able to do it themselves.

00:36:48 Expert 3

Support Mailbox should only be contacted in case of irregularities. Everything just has to be done by them themselves.

00:36:54 Speaker A

Genau, Technical issues quasi.

00:37:01 Speaker A

Do you happen to have any software product or in mind where self-service is not possible?

00:37:09 Speaker A

If not, don't worry.

00:37:14 Expert 3

Salzburg is for payment service, for subscriptions, the service.

00:37:19 Expert 3

What exactly?

00:37:21 Speaker A

Um, yes.

00:37:22 Expert 3

SMS online, for example, you can't manage the subscription automatically, and you can't cancel it yourself.

00:37:32 Speaker A

Yes, I also had the one in the background with regard to desk sharing software, for example.

00:37:41 Speaker A

Change trees when multiple desks are added, desks are deleted. It happens several times a day.

00:37:49 Speaker A

That then quasi such things necessary for the use of the software necessary aspects.

00:37:56 Speaker A

If you want to change them, you have to do it yourself.

00:38:02 Expert 3

That's the question.

00:38:04 Speaker A

That was, it was just an example. So that's what I meant by customer service, in that sense.

00:38:12 Speaker A

Things that are necessary to use the software.

00:38:13 Expert 3

I believe I.

00:38:14 Expert 3

I believe it is in every software, even at Google, there are also problems with with with selfservice, for example, if you use the developer.

00:38:26 Expert 3

License pays for the Google Basedord, the money is debited, but you don't get an invoice.

00:38:33 Expert 3

ddd266

And it's good to contact them and I'd like to have an invoice, but you don't get it. It's an edge case at a giant corporation with a huge software landscape, but they also haven't automated this processor and provided backup service. I think with every software there is something that you can't do yourself.

00:38:54 Expert 3



The question is, how nice is it, how mature is the software at all, how many use cases have already been automated and with every new feature new topics are added.

00:39:07 Expert 3

So in general you can also say that with most software it is not possible to export the database.

00:39:16 Speaker A

Yes, this is a feature.

00:39:17 Expert 3

Nobody really needs competition. What am I supposed to do with the database?

00:39:22 Expert 3

But if you don't need it, then it won't be offered. In other words, supply and demand.

00:39:29 Expert 3

The ones that make the Happy Flow in any software just need to be mapped. What most people need, they have to do themselves.

00:39:37 Expert 3

But that can be provided by unusual user operation doesn't have to be a software feature and I think in every software you can find something if you do.

00:39:49 Expert 3

That which doesn't work.

00:39:51 Expert 3

And don't offer service yourself, because you just have to contact support. That's also the case with Microsoft, which also has a lot of things that just don't work that way and then you just can't solve it that way.

00:40:03 Expert 3

OK, cool gave me an example too. We wanted to move an app from one Microsoft account to the other, then we somehow did, we couldn't do that, we would have to contact him, to what extent the only one could pull the one app from one company account to another, who wants to do something like that, who wants to move from one company account to the other things, so they are only HSP and that's why it's not offered by them.

00:40:04 Speaker A

ddd267

Good to know.

00:40:21

Mhm, Mhm.

00:40:31 Speaker A

Okay yes, makes sense, like that, as you say, yes.

00:40:36 Speaker A

OK, then I'll go over to the last two, now we're done right away.

00:40:42 Speaker A

On the one hand, the development of very detailed FAQ Help section.

00:40:48 Speaker A

And then you can also compare it with.

00:40:50 Speaker A

It is.

00:40:51 Speaker A

Would be if you could then create a chatbot in website or in application.

00:40:57 Speaker A

Integrated or developed? Also for.

00:41:02 Speaker A

Question FAQ, that's the thing.

00:41:06 Expert 3

OK, so I'd start with the chatbot. I just find chatbots unnecessary, usually don't work and you usually never solve a real problem with them.

00:41:19 Expert 3

So it's there, you can get some information out of it, but if the information is nicely described in a head center and the pages are indexed, then I can find it through Google or maybe even.

00:41:36 Expert 3

Gp, the touristy faster my answers like using.

00:41:40 Expert 3

Chatbot on the website, in other words.

ddd268

00:41:44 Expert 3

That's about a chatbot. I don't think the chatbots are good around to provide information.

00:41:52 Expert 3

In the app, the information should always be provided where it is needed. So in the case of invoicing, the individual subscription packages should also be explained.

00:42:02 Expert 3

It should also be explained what I can change, what I can't change, if I can't change something, how can I possibly change that through support, so the app information is in my view the most important with some tooltips or links on an external app center, so that the information can be provided immediately where it is needed.

00:42:29 Expert 3

If the product is complex, then this information should definitely be described. The processes and the integration options have been explained, are explained with the pricing guides.

00:42:44

If that.

00:42:44 Expert 3

product is simple.

00:42:47 Expert 3

Then you had to believe, not necessarily be explained with your heart.

00:42:54

And when.

00:42:54 Expert 3

What are these types of heating more relevant from a marketing point of view, because you write a lot about the product, a lot about the solutions, and if that is also indexed by Google or Bing, then that will be.

00:43:08 Expert 3

But I definitely think it's important that the information is provided in app or Excel.

00:43:15 Expert 3

The simplicity is not in the app because that is not linked to development resources, but nicer than the information is provided with a good user experience in the app. So I'd go back to 600.

00:43:27 Expert 3

ddd269

And say 60.

00:43:30 Speaker A

Ok, and then quasi chatpot little, so 123.

00:43:34 Expert 3

Chatbots I would simply say 1 to 2.

00:43:40 Expert 3

Chatbots are good at self-process to lure leads until someone has time to talk to them directly. So I see someone at I can capture this and then I have maybe 5 to 7 minutes to get around.

00:43:55 Expert 3

To be ready to go.

00:43:59 Expert 3

Then I logged the users to my website, they are there.

00:44:04 Expert 3

But if I don't personally write back the answer in 5 to 7 minutes, then they won't be as happy as if I didn't have a chatbot at all. If you say okay between on-call duty, because from colleagues, if they say okay, we have a live chat, but that's just not easy.

00:44:22 Speaker A

Okay, um.

00:44:25 Speaker A

Would you think it would be more important if the chatbot really could answer everything almost like ne like ne, i.e. actually ne artificial intelligence and on your.

00:44:35 Speaker A

Training your company, so to speak.

00:44:40 Speaker A

Or do you find it rather pointless?

00:44:44 Expert 3

I don't think that's relevant.

00:44:48 Expert 3

Rather, it is a tool, which is quite the result of when I, when I.

00:44:55 Expert 3

So the chatbot can only be trained and then only the data can be taken, then the information already described.

00:45:04 Expert 3

So I have to describe everything first and the chatbot can only answer such good data and information as good as my own descriptions are and pictures are not captured with a chatbot. So a chatbot can't understand the images and can't describe the images with texts.

00:45:29 Expert 3

In a meaningful way, in other words. A head center still offers better and more detailed information or in-app information like a chatbot that can be accessed anywhere. So there's always something visual.

00:45:46 Speaker A

OK, cool, then you're now with the one with the process, pardon me.

00:45:52 Speaker A

If you have anything else.

00:45:54 Speaker A

Missed any pattern grades that are still important. Apart from the fact that you first have to push the software itself over to the cloud, which is also part of transforming to SAAS.

00:46:07 Speaker A

And also takes care of the data security of it, in the cloud, apart from that.

00:46:14 Speaker A

Do you have any important steps that are necessary?

00:46:19 Speaker A

Transform a successful SAAS.

00:46:19 Expert 3

I think especially in the B2B sector it is enormously important that software can be integrated with all the trimmings. So.

00:46:31

Mhm also.

00:46:33 Expert 3

Just start with user maintenance, with our auto-delete userauto-create.

00:46:43 Expert 3

ddd271

It's a process.

00:46:46 Expert 3

Especially in the BVB area, software for employees is being rolled out and is being rolled out en masse for further development. That the information is automatically exchanged between the SAAS tool and the protruding enterprise software.

00:47:01 Expert 3

Mhm, and then there's an absence. Is then these names or functions, departments, groups, e-mail addresses. You don't want to maintain things in every single software over and over again. So if I'm deploying a software for B2B companies or the for multiple users.

00:47:24 Expert 3

Used by every user, then I also need to provide automation for user care, otherwise the acceptance of the software is great.

00:47:34 Expert 3

Very bad.

00:47:36 Expert 3

Is this an application-specific point, i.e. integration options for user maintenance or other information exchange?

00:47:44 Expert 3

I think that's important. I solve a problem with the SAAS, but it has to be integrable in the company.

00:47:52 Expert 3

From the other side.

00:47:55 Expert 3

Is it also important that you do that, that one.

00:47:58 Expert 3

integration options from the tool. So I want to provide information for other tools, so an API interface is also important around order to integrate my tool with the others.

00:48:12 Expert 3

So let's say I have a tool for.

00:48:17 Expert 3

Ticketing system and it must also be able to be integrated with with, with the analytics tool, in the support area or with the login system or how many support parts have been recorded? With Power BI. So it has to be able to communicate with the other enterprise applications in some way.

00:48:39 Expert 3

I think that's OK.

00:48:42 Expert 3

Processes, but processes in the direction of integration.

00:48:45 Speaker A

Mhm OK, yes, it definitely is.

00:48:51 Expert 3

Software without the permission of the privacy protection authorities or of the IT Department, introduced by the IT Department, wants to automate as much as possible and data protection, which we provided there exactly. How to protect this?

00:49:08 Speaker A

Ok, yes it definitely is. I haven't thought about it yet, but yes I will definitely take it into account. Cool.

00:49:18 Speaker A

You still have somehow.

00:49:21 Speaker A

Thoughts on why the SAAS software industry will develop in the future, if there are any trends or what you think it will go where.

00:49:35 Expert 3

Thanks man. I think if you look at these fonging structures on the market, it always leads to a 2 large.

00:49:45 Expert 3

12 So not 12, but up to 100 large companies on the market simply buy up the other small ones, then integrate it into themselves and.

00:49:57 Expert 3

There will be fewer, but larger platforms for different sub-areas.

00:50:04 Expert 3

So you don't need 1020 software solutions for the same solution, unless you offer something else.

00:50:12 Expert 3

Or you can offer it cheaper.

00:50:15 Expert 3

ddd273

Or there is one of the one that has to be offered, that's why I think currently many solutions have taken off in parallel then 2,3, 4 of them will remain on the market and of the 2, 3, 4, they will eventually have such nice sales that they will also be interesting for the large software companies and they will be bought in some cases.

00:50:41 Expert 3

I think that's actually what SaaS is actually doing in the area of the aiming exit, so an exit also entails that someone buys it, and whoever buys it has money for it and was actually already active in the industry, so integrated into your own product, post-polio, or expands your own product portfolio.

00:51:05 Expert 3

I think this is increasingly the case in the SAAS sector, such as in architectural firms or insurance companies, where one buys up the other and thus offers larger software solutions. You can just look at Batillio, for example, how they have developed since then.

00:51:21

Okay.

00:51:28 Expert 3

But you can also see this at Microsoft, at Google, but you don't have to go that far. You can also watch the same one at Hotspot or Atlassian, they are now more of a newcomer on the market in the last 10.

00:51:41 Expert 3

And a little bit buys and invests heavily in some of Sai's companies and then continues to expand their own product portfolio, until not under the same product name, but centralized.

00:51:57 Expert 3

For those who centralize software solutions, then turn into one hand by owning software. Those are different solutions, further, but the owner is.

00:52:06 Expert 3

Has one of the 10 solutions that offers right now maybe addressing.

00:52:11 Speaker A

Mhm okay.

00:52:15 Speaker A

Do you think?

00:52:16 Expert 3

David is.

00:52:17 Expert 3

ddd274

This also clarifies invoicing, because the same processes are then introduced. So you also want to provide support in the same way.

00:52:28 Expert 3

When the same advice is given, but owners are stuck behind the company.



00:52:36 Speaker A

OK, cool, then I'll stop the recording now.

ddd275

## E.4 Expert 4

## Transcript Expert 4

00:00:02 Speaker A

By the way, do you still have the PDF I sent you?

00:00:05 Expert 4

I have it open. But I didn't get around to looking at it first.

00:00:08 Speaker A

No problem at all, only that you not only have to listen to me, but also read along.

00:00:08 Expert 4

I have open myself.

00:00:15 Speaker A

Well, in the beginning it's about definition and so on, we had that first with the first one, that's why I don't think we have to get involved. So what Software The Product is, i.e. the traditional and software service, you can do that. If you know what I'm doing in my master's thesis, you also know roughly.

00:00:33 Speaker A

Exactly, that I focus on the business processes and not on the technical aspect, on the cloud and so on, the code.

00:00:41 Speaker A

Exactly. And now we have this software product company, which has these business processes that still do a little bit manually. As I said, sales calls.

00:00:54 Speaker A

Send contracts back and forth via PDF E-mail customer service is personal.

00:01:01 Speaker A

Exactly, so everything is sealed off in person, so to speak, customer contact and so on.

00:01:06 Speaker A

Company now wants to make the transformation to the SAAS Company.

00:01:13 Speaker A

ddd277

We assume that the software is already in the cloud, but the processes behind it are still the same as the outdated processes I just mentioned. For example, it's still in the document, exactly, and now it's.

00:01:27 Speaker A

With your help, it's possible. To also carry out this transformation of business processes in the second step.

00:01:36 Speaker A

To do this, let's move on to the questions right away.

00:01:38 Speaker A

Crash, you've already introduced yourself, that's why we can skip this too. I know your company.

00:01:45 Speaker A

That's why we'll go straight to the Process Patterns, so a short explanation. The interview will introduce you to 10 process paddles, so to speak.

00:01:57 Speaker A

Recommendations or guidelines that might or might not help. It depends on your judgement of them.

00:02:06 Speaker A

They could help to carry out this business transformation of processes, just from the traditional current point of view of the company, the company that then sells its product as software as a service.

00:02:20 Speaker A

What I would like to structure, how it would like to be structured, would be that you look at the business process patterns and then I ask you about it and then from 1 to 7 just give your rating. That is, 1 means they are not important for the transformation.

00:02:36 Speaker A

At 7 means they are very important or very essential for the transformation.

00:02:41 Speaker A

You can.

00:02:43 Speaker A

Choose freely from the 10 different process balance. So you can give a 7 or all ne 1, as the case may be. You don't have to be here now.

00:02:52 Speaker A

The tendrils or something. Then I would still say yes.

00:02:54

ddd278

Yes, almost.

00:02:56 Speaker A

Feel free to share your opinion on the or your rating explain why you rated the way you did. The process parent and then yes, if you have best practices or can share any wisdom about it, share part with me, then it would be cool too. And if you see limitations somewhere.

00:03:17 Speaker A

Add on then feel free to share them.

00:03:22 Speaker A

Sure, OK, good and the process parents are just from the point of view of the software company that wants to go through the transformation and not from the customer's point of view O.

00:03:34 Speaker A

Well, let's start with the first time.

00:03:38 Speaker A

Exactly.

00:03:40 Speaker A

Cooking I should translate them into German, you understand the passports.

00:03:45 Expert 4

This is then also done in English.

00:03:47 Speaker A

Okay then the first paddling is just Introducing Subscription based Software Packages and a website, which means that the step is now being taken on the website to set up the prices, also to offer different packages with different features and then to explain to the customers exactly what is available at which price point in which subscription which features, the.

00:04:14 Speaker A

can conclude.

00:04:19 Expert 4

That's a good point.

00:04:23 Expert 4

That always keeps us busy. So I think that's a very important pattern.

00:04:28 Expert 4

Just about that, too.

00:04:30 Expert 4

ddd279

Yes, in principle it is. In principle, it's a 7, because if you don't do that, then you don't have an automated process, so then everything goes through the employees again.

00:04:39 Speaker A

Okay, and you're talking about it. That is?

00:04:43 Speaker A

It's.

00:04:43 Expert 4

Yes, we have.

00:04:44 Speaker A

You haven't implemented it yet, have you?

00:04:46 Expert 4

Nope, it's partially implemented. So what we've got, we've kind of just at one of our software tools, we actually have a, we've got.

00:04:55 Expert 4

Up to a certain basis, we have the prices fixed on it and everything that comes above that is regulated separately. Do you often have that somehow, what do I know, Enterprise Contacts Support or something like that, so we have it in that direction too.

00:05:11 Expert 4

Yes, the one that was always on our minds or what was always in our heads, but especially with one of them.

00:05:16 Expert 4

Then the other software is quasi this one.

00:05:19 Expert 4

In the.

00:05:25 Expert 4

With the other software tools is and then.

00:05:28 Expert 4

ddd280

There indeed.

00:05:29 Expert 4

When it comes to municipalities, a lot is about the price and that was one of the reasons why we chose the one tool.

00:05:34 Expert 4

But I did.

00:05:36 Expert 4

So if you don't do that, then you don't even have to start. And if you only do it for a certain area, I'll say that now 70% of the requests are clear and everything that is just huge requests, you can talk about it again. But at the end of the day, if you don't do that, as I said, then you can't automate it.

00:05:52 Speaker A

OK.

00:05:54 Speaker A

I think you're already in the second process pattern.

00:05:59 Speaker A

Offshore Enterprise Package with hands on work, i.e. with Hanson, means that if the Enterprise Package is chosen, on the website then, let's say this one, so what does outdated mean, it's still helpful to maintain personal contact with customers, it's not a bad thing, but that's what happens with the Enterprise Package here.

00:06:21 Speaker A

The personal contact is in the foreground and the customer is accompanied through the customer journey and this is then just an extra Enterprise Package, which is then just the last option. Mostly on the far right is the Enterprise Package.

00:06:35 Speaker A

That's still being offered.

00:06:39 Expert 4

So you mean how important it is to do that.

00:06:42 Speaker A

Well, exactly. So that would be the second process pad here, then just the introduction.

00:06:47 Speaker A

Of an enterprise package or if you, if you look at it that way now, the retention.

00:06:53 Speaker A

ddd281

Non-contact but next to it packaged as an Enterprise Package, which will then cost significantly more for customers. What's your take on that?

00:07:02 Expert 4

Yes, so I don't think it's that important now.

00:07:06 Expert 4

So it's bound to come. I would imagine that it depends a bit on what kind of software it is.

00:07:11 Expert 4

Because if it's a basic software, then I think it doesn't matter if it's a big or a small company. If that.

00:07:17 Expert 4

Is with any adjustments or where the pricing is not extremely high.

00:07:22 Expert 4

So it probably makes sense.

00:07:24 Expert 4

Now let's settle it in the middle somehow.

00:07:26 Speaker A

OK.

00:07:28 Expert 4

4 is exactly in the middle, so it probably depends on the tool. So let's say it now.

00:07:31 Speaker A

Mhm okay.

00:07:37 Speaker A

Then to the next point again, that would be the introduction of a subscription management tool. So, for the company, very for the software company, a central hub to manage all subscription-related activities will begin.

00:07:54 Speaker A

From sales to changes in the services that the customer wants to have during the term of the contract.

00:08:01 Speaker A

Money can be seen again and again, so adding more and more services during the contract period or taking away such things, cancellations and so on payments, that the there can somehow be tracked and managed with a subscription management tool, so to speak, whatever that looks like.

00:08:18 Speaker A

ddd282

The concept of it.

00:08:21 Expert 4



Yes, so we use for example. So we have a tool where we can do the process, I think the last couple talked about it in such a way that we're on it, a tool.

00:08:29 Expert 4

To automate.

00:08:30 Expert 4

And that's where we use a subscription management tool.

00:08:34 Expert 4

And I think it makes a lot of sense.

00:08:36 Expert 4

You can probably do it differently somehow. The question is whether you really save effort with it.

00:08:43 Expert 4

I'd say yes, sex is also very important.

00:08:46 Speaker A

Mhm OK me because you just said you can do it differently, but yes OK 7 OK is now also on.

00:08:54 Expert 4

Yes no, because in the end it's anyway, so it's always a subscription management tool, whether I somehow put the thing back together myself or whether I take something ready-made, that's probably normal.

00:09:06 Expert 4

It's a matter of taste, but I believe everything.

00:09:08 Expert 4

So I think the goal of such a thing is most of the time, I want to achieve that when I want to scale big and then it always makes sense that.

00:09:14 Expert 4

I also have a tool behind it, otherwise I don't have to invest the time.

00:09:18 Speaker A

Yes, no, I'm just going to tell you how others do it or make something for themselves. I don't know if you have a single at Flexus, so now off the record, though.

00:09:29 Speaker A

The, those, they write everything in their customer document in the Google Sheets and then write there in the notes then date and yes, customer wants 10 more objects.

00:09:40 Speaker A

And then, if of course annually, then the invoices are written manually. Too. It just has to be compared with what does the contract look like from a year ago and how has the use of the software or the software services changed, then everything will be.

00:09:55 Speaker A

Manually tracked so in Google Sheets compared to last year's invoice. How does the invoice have to be adjusted now, does anything have to be recalculated?

00:10:03 Speaker A

That's what Philipp Manuel does.

00:10:07 Speaker A

That's what he told me at the time and then I thought it was really crass that it was still being done.

00:10:14 Speaker A

That he then also put together a workaround or yes her own tool, but also. So Philipp himself is not enthusiastic about it because of that.

00:10:24 Speaker A

In any case, there are ways to do this without a tool, but that's just the question.

00:10:26 Speaker A

Es Sinn macht? Genau.

00:10:30 Speaker A

That's OK. 7. In your place. I think for Philipp it would also be ne 7.

00:10:37 Speaker A

Right then.

00:10:39 Speaker A

Let's go straight to the next point. That would now be the introduction of an automatic payment tool, i.e. in the software.

00:10:49 Speaker A

With the packages, it is often possible to make a monthly payment and then many large SAAS companies, i.e. Monday or Zapier, which are all called as they are all called, also use monthly credit card payments.

00:11:02 Speaker A

That's just the question.

00:11:06 Speaker A

How is your point of view, whether it makes sense that all payments are automatically collected, everything is automatically tracked, that subscription fees are collected, which is then linked to a bank account in the bank and so on.

00:11:20 Speaker A

Again, your point of view. That's right. Does that make sense?

00:11:23 Expert 4

It definitely makes sense, so where we use this subscription management tool, we also use the integrated payment. So everything goes over there, you always lose a little bit of sales, that's clear, you just have to squeeze that. Probably there are also without yes I mean when the system spits out invoices and I had to, but that goes through my bank account and.

00:11:32

Mhm okay.

00:11:45 Expert 4

Further comes a little bit of it, it depends a little bit on whether it's annual or monthly payments. Then it probably works too, but I would still consider it all very important, so 5.

00:11:55 Speaker A

Okay, how would you differentiate between annual and monthly billing? What does that look like, is it less important with annual or does it actually not matter?

00:12:06 Expert 4

I would say it's less important with an annual year, because then I have the effort once a year, when I have a lot of customers and have to bill monthly, to do it manually.

00:12:14 Expert 4

Yes, I don't feel like it.

00:12:19 Speaker A

OK, macht Sinn, macht Sinn.

00:12:23 Speaker A

Okay, so you said ne 6 right?

ddd285

00:12:26 Speaker A

And what do I think of that? OK 5 OK, all right then.

00:12:26 Expert 4

Fin Pocket Has Slumped.

00:12:32 Speaker A

The next point is, then also related to the different internal tools and so on that you have or the systems operating systems, but it would be the interconnection between the different systems to the different interfaces, API interfaces of the systems and there.

00:12:51 Speaker A

Yes, for example CRM tools or the aforementioned subscription management, payment tracking, right?

00:12:58 Speaker A

database, which is then linked to the application itself. That in between the systems so certain.

00:13:06 Speaker A

interconnection and thus automation can take place.

00:13:10 Speaker A

How do you stand?

00:13:13 Expert 4

I also think it's important.

00:13:19 Expert 4

So we have there in the one process now again, so as I said, we, I don't know if.

00:13:23 Expert 4

That, Bill said, would be what?

00:13:27 Expert 4

We use this as a subscription management system, so to speak. That's actually quite cool, they also have Replay as a payment provider now. You can then also use the whole thing as a CAM and.

00:13:36 Expert 4

You've just got different ones.

00:13:38 Expert 4

And we have almost everything that is so much in payment and other things is in the Billberg and Billwerk basically sends us to our API commands to set up new instances and so on and that's of course pretty cool.

ddd286

00:13:51

Oh, thanks.

00:13:53 Expert 4

This is certainly not a must either. I mean, if you have to set up the instance, if everything is done manually, I still have to set up the instance, yes then it's like that, but of course it's also the same as with payment, I would say that over 55 as well.

00:14:06 Expert 4

Quite something, which of course makes the process much easier when I have that.

00:14:09 Speaker A

Mhm, OK.

00:14:13 Speaker A

Well, then let's go straight to the next one.

00:14:17 Speaker A

That would be the sixth point of introduction.

00:14:20 Speaker A

An onboarding area or an onboarding process that now lets the customer set up their own instance of the software in self-service mode, i.e. they do everything themselves step by step, so to speak. So the instance is already created, but just the loading of the instance of the customer instance with its own data and so on is then done again by itself with a step introduction without.

00:14:39 Expert 4

Yes, focused. Then, in principle.

00:14:49 Speaker A

Support for the first time or without human support.

00:14:53 Speaker A

Or that.

00:14:54 Speaker A

For the customer, it is virtually made that he has his hands free.

00:14:57 Speaker A

And don't let it be done, yes.

00:14:57 Expert 4

ddd287

Are you here?

00:15:02 Expert 4

Ah now, you were just kind of choppy.

00:15:04 Speaker A

Okay, I'll turn off the camera.

00:15:07 Speaker A

Okay, you've heard so far or I can just do it again.

00:15:12 Expert 4

Yes, basically you. So wait, I had just heard that it's about the fact that you, i.e. me, the application itself, the instance.

00:15:18 Expert 4

Created automatically, but that when you get access, so to speak, that you can setup it automatically or yourself, configure one yourself or that you then need another call with the support.

00:15:28 Speaker A

Exactly, the customer has just selected a package, so to speak. On the website, such a person has entered payment data, created an account and can enter the instance right away, can get started right away and then it is his job self-service to fill his instance with his data, which is necessary to put the software into operation or roll it out in the company then.

00:15:59 Expert 4

Yes, to one.

00:16:00 Expert 4

It's also important to the automated process, but I would call it less important because it somehow comes a bit downstream, because if it doesn't work, the customer just calls, then I have to support him that it's basically not that bad. That's why I would of course put it with a 3 or so.

00:16:18 Speaker A

OK.

00:16:24 Speaker A

Gut macht Sinn.

00:16:27 Speaker A

That is, downstream. What do you mean by that.

00:16:29 Speaker A

ddd288

Already after the purchase was completed, wasn't it?

00:16:29 Expert 4

So if the customer is the process step, then in principle he has already decided on my software. Yes, well, if you're in the demo.

00:16:38 Expert 4

Maybe not necessarily, but at least he's made a move. I have his contact details, because he had to set up his instance, so there was already a lot going on.

00:16:48 Expert 4

I think I would rather focus on the other topics, because if I haven't automated the rest yet. But then he can put together his own instance. So I would prioritize the other way around, so as I said, the complete process is absolutely important, but when I look at the other topics now, it becomes something for me, what comes in the end.

00:17:08 Speaker A

Mhm ok, ja macht Sinn.

00:17:15 Speaker A

Okay, then let's go straight to the next point, which is, the customer now has his software.

00:17:21 Speaker A

Rolled out in the company, which then it has, there is probably a new admin for the one responsible for the software in the im.

00:17:30 Speaker A

Yes, in the name of the company, which then manages the software, that it has a certain admin area in the application itself.

00:17:40 Speaker A

The customer is allowed to manage them, so maybe the payment options.

00:17:47 Speaker A

To change, or to manage all contractually regulated or subscription-regulated things there or also, for example, to cancel or so in the application and yourself with it.

00:18:01 Speaker A

Click on a button Exactly.

00:18:05 Expert 4

I would now be similar to me.

00:18:07 Expert 4

ddd289

Maybe a little bit more important than the one with onboarding, but it probably also depends a bit on how often such subscription details occur.

00:18:15 Expert 4

The word change or payment options? I mean, there are also, so with us, especially if we have municipalities, as I said, the price goes according to the number of inhabitants, the number of inhabitants does not really change, that means the price does not change, accordingly something like this would be extremely unimportant for us if you have something like that that comes often, then it can make sense, But it would also be something a bit later for me, so I would say with a 3.

00:18:39 Speaker A

Okay.

00:18:43 Speaker A

Then point 8. Again, this has to do with customers, that would be the introduction of a self-service customer service, i.e. that allows the customer to make certain changes in the use of the software not only in the contract details or something like that and to make them even now without let's say permission or help from the software company.

00:19:19 Expert 4

It would actually be one of the first steps for me. So if I mean, if I already have a customer base.

00:19:26 Expert 4

No, being difficult.

00:19:29 Expert 4

I can now prioritize again. So with us, it's actually the case that we actually have almost no changes at all that we have to make to the code for the customer, they can actually do everything.

00:19:39 Expert 4

Although we don't have the steps before that, because we can simply save a lot of support with it. That means, I can imagine that you can save a lot of contact with the customer, if I want to automate a lot, I would probably call it a bit more important than the other two points, but still not pressed so high. So.

00:19:44 Speaker A

Okay.

00:19:57 Speaker A

Mhm OK, can you give an example of what customers can do themselves, for example? So a process like that, maybe the one where you don't want to take any intervention on it.

00:20:10 Expert 4

ddd290

Yes, well, I mean, with us you can just set how the municipalities, if we are now with the stereo programs, like the municipalities, with which holidays or with which settings.

00:20:20 Expert 4



How is the registration process supposed to take place? Which payment system should be used and so on, we only have to act in an extreme emergency. There are some payment systems, if you connect them, then you have to.

00:20:31 Expert 4

The municipality can't store or create any pods, or even if we connect communication channels with our other software. As far as possible, we have built everything in such a way that the municipality can say, I want to use it and then it happens automatically, for some things we have to support technical support, as I said.

00:20:52 Expert 4

We try to automate as much as possible so that we don't have so much customer contact that there are calls coming in every time for a change, so at least everything that needs to be changed more often.

00:21:03 Speaker A

Mhm okay I see.

00:21:07 Speaker A

Okay okay, then I'll go straight to the next one. This also has something to do with how the customer service itself or the reduction of it, that would now be the development of a detailed.

00:21:19 Speaker A

FAQ section or helpsaction with all sorts of use cases and so on that just the.

00:21:27 Speaker A

Customers tend to ask only for technical errors. If it's really technical errors, then get it right and the rest can be handled automatically with self-service, with Fhq or something like that.

00:21:42 Expert 4

Let's put it this way, that would probably be one of the first things I would do, but that's more because the time commitment would probably be small. In terms of importance, I would rate this in a similar way to point 8.

00:21:53 Expert 4

Yes, maybe a little bit, let's say 5 like that.

00:21:57 Speaker A

Okay.

ddd291

00:21:59 Speaker A

That was 8 number 5 as well.

00:22:00 Speaker A

What did you say?

00:22:01 Expert 4

That's what I believe you said.

00:22:02 Speaker A

And, ok.

00:22:08 Speaker A

Kind of connected. Point 10.

00:22:12 Speaker A

Anyone who is now developing a in the website now just on the landing page or whatever or in the application itself.

00:22:21 Speaker A

A chatbot, in other words. Providing answers to specific customer questions, right?

00:22:29 Speaker A

Yes, yes, just all the answers, all the questions and answers as far as possible in the chat, in the chat window.

00:22:38 Speaker A

Be it with AI or whatever.

00:22:38 Expert 4

Is it a chat?

00:22:40 Expert 4

OK, Mhm.

00:22:42 Speaker A

Yes, probably AI, because then it's automated.

00:22:45 Speaker A

Ai Chatboot trains on your knowledge base.

00:22:52 Expert 4

ddd292

Yes, I would also put it at 5.

00:22:58 Speaker A

Okay.

00:22:58 Expert 4

With things like this, I always find it a bit difficult to actually quantify the added value afterwards, because I don't know how much effort is involved.

00:23:06 Expert 4

That it works properly afterwards compared to what I save.

00:23:11 Expert 4

How well it already works, that's what really bothers me a little bit at the moment.

00:23:17 Speaker A

OK, where, where would you see added value in it? Such.

00:23:21 Speaker A

So to what extent would you feel added value or where? When would you measure it, if it works?

00:23:26 Expert 4

Well, if the support really goes down with it. So if I mean, if I integrate such a chatbot, then I usually have the opportunity to get a little bit of statistics about it.

00:23:39 Expert 4

Perform. How often did inquiries come, how often was this resolved? The customers were satisfied, these would also be things where I would then see that or so then the support does not even necessarily have to be saved. So of course, if I get good feedback that people feel supported by it, then that would probably be enough, depending on how big the costs for such a chatbot are, but in the best case, of course, that I notice it in the support that it goes down.

00:24:04 Expert 4

And that's just the way it is for me. I don't know, just this one.

00:24:08 Expert 4

Service Customer Service that I somehow make a public wiki or if I have a kind of ticket system where the customers can report any bugs and connected to the ticket system so a knowledge base. If I report any error and then the FAQ in the wiki is displayed, where exactly the point has already been described. For me, these are things that I can now set up so quickly without having to invest time and.

00:24:36 Expert 4

I'm pretty sure I'll reduce support with me, then <sup>ddd293</sup> these would be things for me, but I.

00:24:43 Expert 4

Which perhaps would not be considered more important. I wouldn't go that far, but they are.

00:24:48 Expert 4

So this one.

00:24:49 Expert 4

Hangs, where I would say, OK, we'll take them with us now, that's done relatively quickly.

00:24:54 Expert 4

We then take a look at the chatbot.

00:24:56 Expert 4

That's actually the case, that's why I only think of this topic in the picture.

00:24:59 Expert 4

Also so much.

00:25:01 Expert 4

Time to plug in and say, come on.

00:25:04 Expert 4

Let's take a look at it now.

00:25:05 Speaker A

OK, if you want to give the final a grade or a grading, what would you say at 10?

00:25:13 Expert 4

So if you don't care about the effort and other things I would just do it ne.

00:25:17 Expert 4

5. How far do you enter?

00:25:19

Okay.

00:25:21 Speaker A

Cool, then it would already be the process.

00:25:25 Speaker A

Then I would have a few additional questions, then we would have done it right away. I have now mentioned 1010 paddles here. ddd294

00:25:35 Speaker A

If we now exclude the Paddam itself from the software or the code itself.

00:25:44 Speaker A

From the old state, for example, the customer has to download it from the website and then install it on his own, on his own resources or on his own system and then host it himself and so on. Not to mention bringing that code or software to the cloud.

00:26:03 Speaker A

And because even then, data security makes you secure. Other than that, I have something.

00:26:11 Speaker A

Forgetting what else you find important in this point. Which would be even more important as a process pattern, so to speak, in the transformation from SAAP to SAAS processes.

00:26:25 Expert 4

No, not really. I wouldn't think of anything now.

00:26:28 Speaker A

Nothing acute, yes, is certainly not.

00:26:32 Speaker A

No, OK.

00:26:35 Speaker A

Then to the last question.

00:26:39 Speaker A

If anyhow.

00:26:42 Speaker A

Do you have any comments or observations or trends for software, service and general or software service transformation in the industry, do you still have some insights or something that you can share?

00:26:58 Speaker A

Any observations? Future prospects?

00:27:06 Expert 4

Now not from the project management point of view of CERN, then more technical things. Like I said, as if that was for me now.

00:27:11 Speaker A

ddd295

Yes, of course. So it can be very, very far now.

00:27:14 Expert 4

Is it like?

00:27:15 Speaker A

Please can now also be very broad. So it doesn't have to be specifically related to the topic, just software development or the future of software in this area, so to speak.

00:27:27 Speaker A

Or your favorite.

00:27:27 Expert 4

So I do think that the future will definitely lie in this containerization of the applications, because you can do that nice and fast, I mean, now every cloud provider has some easy way to build up any Docker containers, whether it's absurd or other things. If you build something yourself with Kobanedes. So I think that's definitely the case, but that's possible.

00:27:50 Expert 4

Way there.

00:27:51 Expert 4

At least have new software at the moment.

00:27:54 Expert 4

That you develop anew.

00:27:57 Expert 4

But I had already told you that with the Billwerk, I think it's a pretty cool thing, I really wanted to cover Sat Scription Management, Payment, CRM, actually everything in one system. Sure, they want money to do it, but the question is whether it's cheaper. If you build it yourself.

00:28:04 Speaker A

Yes, I'm OK now, by the way.

00:28:17 Expert 4

We've tested it now. We're actually quite happy with it.

00:28:21 Expert 4

So that's what I can actually say as best practice in this area.

00:28:25 Speaker A

OK, have you ever made calculations of what it would cost to develop this function of Billwerk yourself as a separate tool?

00:28:33 Speaker A

And then woken up, weighed, right?

00:28:40 Expert 4

We had done it back then, but unfortunately I can't tell you anything too precise now. The decision for Billwerk had been made by a colleague at the time, so I can tell you there or had mainly dealt with the Aktiver.

00:28:56 Expert 4

I can't even tell you now that the cool Alda is in Billberg. If you.

00:29:00 Expert 4

Always the same, the same interfaces. That's fine if you build the system yourself, but you can just attach all kinds of payment service providers and so on, so that's actually nice.

00:29:11 Speaker A

Mhm okay yes, if you decided to do it, it was probably cheaper than developing it yourself. I can, I think I can already imagine it.

00:29:19 Speaker A

Maybe it's a bit more time-consuming to do something like that yourself.

00:29:20 Expert 4

Yes you, you just need it. Sure, you have to adapt your software to the fact that it's the connection with a Billberg, but you can also just do it, so that's a thing again. Do you want to set up the companies now and put in another half a year of development work until you automate the whole process and then maybe just what do I know, then you have your accounting tool, you want to create invoices automatically, then you have another CRM tool where you have to create the contact and so on.

00:29:48 Expert 4

Store contracts somewhere, manage them and there you have it. So you have a lot of interfaces and you have everything in one. Sure, we now have 2 accounting groups, so we have a normal accounting area and one that goes via Billberg, but we don't really care about that for the time being.

00:30:06 Expert 4

It was a much faster start. You just integrated the thing and then you have no idea afterwards if you can get started quickly until after 2 weeks. And if you stand on yourself and develop the whole thing, then you can sink time without end.

00:30:15 Speaker A

OK, krass, and.

ddd297

00:30:25 Speaker A

Ok, well, then I'll stop recording here now.

## E.5 Expert 5



## Transcript Expert 5

00:00:00 Speaker A

OK, I started. Yeah, I will quickly just introduce myself.

00:00:06 Speaker A

Yeah. As you know, my name is Christian.

00:00:09 Speaker A

I'm 25 years old and I'm doing my master's in business informatics at the University of Utrecht and I'm writing my thesis at the moment as well.

00:00:18 Expert 5

OK.

00:00:18 Speaker A

And which focuses on the.

00:00:21 Speaker A

Business process based transformation of software company offering traditional software also called software as a product.

00:00:30 Speaker A

Towards the same company selling their software software as a service. Yeah, and my research focuses on the business processes of that whole process and not the technical aspects of bringing the software or the code into the.

00:00:45 Speaker A

Cloud and for visualization I'm using BPMN.

00:00:51 Speaker A

Yeah. So.

00:00:55 Speaker A

Uhm, I think you know the differences between software as a product and software as a service, right?

00:01:01 Speaker A

ddd299

I mean, you also read the the PDF, I don't know have. Do you have it open at the same time?

00:01:06 Expert 5

I have it open. I really.

00:01:08 Expert 5

Quickly scroll through so I didn't read it in.

00:01:10 Speaker A

OK.

00:01:11 Expert 5

Detail, but I yeah, I went through.

00:01:14 Speaker A

OK, so I mean, I don't have to go into detail and explain you what the two concepts are, right.

00:01:19 Expert 5

So yeah, it's OK.

00:01:22 Speaker A

UM.

00:01:24 Speaker A

So then let me just get over to the questions. Let's start with your view. Maybe you can introduce yourself a little bit and also list your experience with software as a product or especially software as a service.

00:01:41 Expert 5

Yeah. So hi, I'm [expert name]. I am a founder and CEO of optimal.

00:01:47 Expert 5

We are mainly dealing in softwares as a service. Also you know with our clients we are mainly focused on on that. I mean in the digital age, I believe that it's just something that we went through with the flow.

00:02:03 Expert 5

Otherwise we our services are focused on process.

00:02:07 Expert 5

UM.

00:02:08 Expert 5

In general, business management, consulting and services, but with focus on process management, digitalization of processes and so on. And besides our services, we also offer education because let's say if we take, we are we're having a client who has like.

00:02:28 Expert 5

We optimize processes and some digitalization or digital transformation with implementation of some.

00:02:35 Expert 5

Let's say high end high end technology is something that we need to do. Then of course, we know that there's a lot of other aspects that are connected with processes. So we really take processes on a holistic and like a comprehensive level because we know that processes.

00:02:55 Expert 5

They can be on the paper, they can be, you know, model modeled and listed. But if the if the whole company culture, if the people, if everything just doesn't align, it doesn't make sense to have processes because.

00:03:08 Expert 5

You know you don't have the same effect, so that is why.

00:03:11 Expert 5

We also have.

00:03:12 Expert 5

Education. When we try and.

00:03:13 Expert 5

Communicate that we try and align culture. People with the processes and we also use like sort of approach people over processes because in the end of the.

00:03:24 Expert 5

Day if this is not.

00:03:25 Expert 5

Like a fully automated production.

00:03:28 Expert 5

People are the ones who will in general.

00:03:30 Expert 5

Have like that.

00:03:32 Expert 5

They will be the ones recognizing opportunities for improvement. Again, if you don't have like really implemented like PM management software that will do all the calculations and so on which most of the companies doesn't because.

00:03:47 Expert 5

You need to.

00:03:48 Expert 5

It's not that you model processes once you need to, then actively update that which takes time and effort. So in practice, not many people decide.

00:03:59 Expert 5

To go through.

00:04:00 Expert 5

That, but instead of that they allocate like process managers, process accounts who are responsible for for that.

00:04:09 Expert 5

In the long run, of course.

00:04:10 Expert 5

So that will be briefly briefly, but we we are about, yeah.

00:04:16 Speaker A

OK. And so you already mentioned your own consultancy firm, optimos, yeah, would you consider it like small, medium, large enterprise consultants, yeah.

00:04:26 Expert 5

We are small. We are, we are.

00:04:28 Expert 5

Still small, of course, actively growing, but yeah, definitely.

00:04:32

Definitely small.

00:04:33 Speaker A

OK, good. Then let's continue over to the process patterns. I'm going to quickly explain.

00:04:40 Speaker A

How we're going to proceed. So the interview, the main part will consist of those process patterns which are can be considered as measures or guidelines that could or could not be helpful for transforming business processes from an SAAP company into a SAAS offering company.

00:04:59 Speaker A

So this is all depends on your verdict. If you think they're helpful or not. Of course, feel free to just bluntly say what you think about them.

00:05:06 Expert 5

OK.

00:05:12 Speaker A

So I will ask you about how important or applicable these process patterns are. And first of all, I ask you to give a rating from one to seven and one means that they're not really essential for this transformation and seven means they're very, very essential for the specific transformation. And then it would also be nice.

00:05:32 Speaker A

If you could explain and justify your answer.

00:05:36 Expert 5

OK.

00:05:37 Speaker A

Also, if you had already experienced with those kind of process patterns in your daily work, your professional work, then if you could already share some some knowledge on that or best practices from your yeah practical insights that you have.

00:05:54 Speaker A

That would also be great and if possible, if you're.

00:05:58 Speaker A

See some limitations in uh some process patterns that you also point out that so just be super honest and.

00:06:05 Expert 5

Yeah, sure.

00:06:06 Speaker A

Say whatever you think about them.

00:06:09 Expert 5

Can you before just elaborate a bit what you mean on those process patterns exactly? Yeah, so.

00:06:17 Speaker A

These process patterns basically showcase.

ddd303

00:06:21 Speaker A

Different like guidelines or also processes on how to transition or transform different aspects of a traditional software company into a software service company. So it's not about the code as you already spoke, but also about the.

00:06:41 Speaker A

Different business processes in detail, I'm looking at UM sales onboarding of customers, uh customer service, invoicing.

00:06:54 Speaker A

And the determination of of the contract or the termination of the cloud instance that the customer was using. So these are like the the five.

00:07:06 Speaker A

Big business processes I'm looking into and.

00:07:11 Speaker A

Some of these process patterns concern all of the different business processes. Some of the business, uh, the patterns concern maybe only one business process, but.

00:07:25 Speaker A

Basically, these process patterns could or could not help.

00:07:31 Speaker A

Transition those. Yeah. Software as a product processes into the software as a service processes in order to complete that business transformation.

00:07:44 Speaker A

Is it any clearer or do you need some more?

00:07:47 Expert 5

Yeah. No, no, it's clearer. I just didn't know if I should now go down through those points that are in questionnaire or just to to like talk bluntly. So the thing with that is I think it depends on what the goal of a company that is implementing.

00:07:48 Speaker A

It's here.

00:08:03 Expert 5

That are.

00:08:04 Expert 5

So because if you're, you know there's there can be a lot. So. So for example some people like I said, strive for automation. Some people strive to have the most customer centric approach. So come to set of processes is really does really depend on what company.

00:08:22 Expert 5

Do you wish to have?

00:08:25 Expert 5

On the long run, so for example.

00:08:27 Expert 5

If we go through.

00:08:28 Expert 5

Those points you then have like that subscription based software package on the website and transparency in pricing and features. So.

00:08:35 Expert 5

There is something.

00:08:37 Expert 5

Depends. Is it? Is it your software like straightforward? Is it something that you know that your potential clients will understand because for example, I work with companies that have Microsoft product, Microsoft products like buy themselves are complicated in pricing, complicated in users and we know that if we put pricing.

00:08:58 Expert 5

On the website it will only cause confusion, so it is.

00:09:01 Expert 5

Easier to get a quote request and then you know quote them based on their needs, desires and you also with you know with not representing.

00:09:12 Expert 5

Prices on the website and be transparent. There is also additional step that you have with your potential clients which can which can then affect your overall that pre sales process prospecting and lead generation process. You know because you can then try and figure out if there's potential clients or something else.

00:09:33 Expert 5

So again, it depends if your goal is to fully optimize everything that you do, then of course be transparent. Have some sort of automated process for quoting, for pricing, for invoicing or that. But if your goal is to connect with clients to build on the relationship on the long run to.

00:09:51 Expert 5

Give them the best customer experience and ~~span>span~~ then I would say have few guidelines just so they don't come and they are shocked or you know they can budget a bit. But for those final quotes you know make them to have like a meeting or general e-mail communication or whatever.

00:10:11 Expert 5

Works for companies, so yeah.

00:10:14 Speaker A

And for what companies do you think it makes sense to just showcase to get in touch with them on their website for a final quote? Does it depend on the company? Like what, what are the factors where it makes the most sense?

00:10:30 Speaker A

To either showcase all the prices transparently or don't show them at all and let potential customers ask for a quote.

00:10:38 Expert 5

Yeah. So one would be complexity of the product that you're set with the software that you're selling. So if it's a straightforward product that it's only based either on users and functionalities.

00:10:51 Expert 5

And they can clearly see for some sort of feature list or they want the what they can choose. Then of course that would make sense to have like transparent pricing, but that is some sort of complete like complicated way. It doesn't make sense then also about your internal process flows and work process on if there is something that you have the.

00:11:12 Expert 5

Capacity to, you know, put people on to.

00:11:16 Expert 5

Use basically internal resources for managing those workflows. Then that makes sense to a certain point where it becomes overwhelming and you also need to automate your internal processes. But then again, if you have some, if you have 100 invoices per month, that is manageable, but if you if you have 10,000 invoices a day.

00:11:36 Expert 5

Today, then, of course, it doesn't make sense to have 30 people just voting, so it depends. So that's why what people want companies also do.

00:11:45 Expert 5

They you probably see that, but they have like some sort of fixed pricing, really clear features and of course always an option to, you know, discuss further and to customize and so on so.

00:11:58 Expert 5

It's really hard because it.

ddd306

00:12:00 Expert 5

Really depends on you know the product, the company, the desires so that.

00:12:05 Expert 5



You have companies that they desire is to quickly grow to gain revenue. So for those that you know, transparency would not be the best if they cannot allocate sufficient resources internally.

00:12:19 Expert 5

But if the companies goal is to stay where they are, they are happy. They don't wanna grow. They just wanna be sustainable for a long run. And if this is something that they have implemented and it works for them, then it doesn't make sense to change that or to, you know, if they have some sort of practice or if they are going into that.

00:12:40 Expert 5

They don't operate like that. They if they have some sort of calculations or analysis, why that would work then that is also OK. So I don't think it's a right or wrong answer. It is just understanding the needs and seeing what's right for you.

00:12:56 Speaker A

So you say if if companies want to grow, they should offer those subscription packages with the price on the website?

00:13:06 Expert 5

To yeah, to a certain extent and perhaps like.

00:13:10 Expert 5

If they want to grow, they should first make some sort of activities that clearly communicates the complexity of the software. So how to read the explanation with the you.

00:13:24 Expert 5

Know to avoid the.

00:13:25 Expert 5

Needs in person contact in person to person.

00:13:31 Expert 5

Or just communicate it via e-mail.

00:13:33 Speaker A

OK, so connected to the first.

00:13:38 Speaker A

ddd307

Point. Let's imagine they they offer packages on their website. Does it make sense to also offer?

00:13:47 Speaker A

Or to always offer enterprise package with hands on work.

00:13:52 Speaker A

Uhm, where you give your your customer personalized contact points throughout the whole customer journey?

00:14:01 Expert 5

Well again depends if your goal is just to have quick inflow or like quick level revenue stream just to get quick client, you don't really care so much for customer experience you know. But if you have some sort of actions that you know you will need them in the future.

00:14:20 Expert 5

You wanna, you know, get them on level to see how you can benefit their business more. How how they can benefit your business. Perhaps if there are any partnership opportunities and so on then of course, yeah, I would. I would. I would always encourage that just because you show that you thought of them, you know and.

00:14:39 Expert 5

It just shows.

00:14:40 Expert 5

Some sort of clarity from the beginning.

00:14:44 Speaker A

OK so.

00:14:47 Speaker A

Yeah, let's let's focus a bit on the the the companies that want to grow that offer their subscription on their website and showcase their prices.

00:14:58 Speaker A

So you know those typical SAAS softwareslikemonday.com or Zapier or stuff like that.

00:15:05

OK.

00:15:07 Speaker A

So that you kind of know the direction that I'm heading into.

00:15:12 Speaker A

And so when we look at. ddd308

00:15:15 Speaker A

Like potential clients or new customers signing up?

00:15:19 Speaker A

Do you think it makes sense to introduce a subscription management tool which is a central hub for managing all subscription related activities including the sales or changes in the subscription during the the?

00:15:34 Speaker A

The contract time also terminations and payments which are running automatically. Basically and are tracked over that subscription management tool.

00:15:48 Expert 5

So that on the so those companies that are selling those softwares that they have internally. So when you buy the login you have profile, yeah definitely because I work with companies where that is not an option. Let's say they will not decide to purchase a product just because.

00:16:09 Expert 5

You know they.

00:16:10 Expert 5

Usually tend to upsell, upgrade and if there is no clear way to do that then you need.

00:16:17 Expert 5

To. Usually it's really hard to get in contact with them and you know, it just doesn't. Why.

00:16:24 Expert 5

A larger organization, they.

00:16:25 Expert 5

Don't have time.

00:16:26 Expert 5

To, you know, figure every subscription that they have.

00:16:29 Expert 5

Out. So it really has to be straightforward. Also maybe.

00:16:33 Expert 5

What is really great to?

00:16:34 Expert 5

ddd309

Emphasize if there are no.

00:16:37 Expert 5

Clear contacts on the website, so if there is no e-mail, no phone number.

00:16:44 Expert 5

I have like 90% of the companies that I work with will not decide to purchase that product just because as I said, perhaps you know companies they need to include that ID on the invoice. If that is not something that the platform will do automatically, they need to contact them. They need to change that and so on. So.

00:17:04 Expert 5

It's just, yeah, I would definitely say that is a must, not not something that you know is desired, but to have that central hub for managing all of that. I believe it's really it's really necessary because you also can have like a companies that will, OK, I will test this product in this franchise and you know because they have, they can have a lot of locations.

00:17:25 Expert 5

Where they are operating with. So for example, OK, the European European locations, we will test this product and if it's OK, we will then expand to the US entities and so on. So they need a way to add users, they need a way to manage.

00:17:40 Expert 5

Then you know because the companies, when they are, then usually when they're implementing products and licenses. If there are larger companies, there won't be one person who will have license, it will be more 20 or something like that. So yeah, I would say that is that is a must.

00:17:58 Speaker A

So it's a 7 from 1:00 to 7:00.

00:18:01 Expert 5

Seven. Yeah. Sorry. Yeah. Seven. OK.

00:18:03 Speaker A

The first two.

00:18:04 Speaker A

The first two, if you want to give quick numbers for them as well, what would you give them?

00:18:08 Expert 5

Yeah. So the first one again really, really depends. So let's say 4 because it's not, it's, it's OK. But it's not like a must.

ddd310

00:18:21 Expert 5

And then enterprise packages. Yeah, sure that.

00:18:24 Expert 5

Is that can be A7?

00:18:27 Speaker A

OK.

00:18:27 Expert 5

So if you do decide to have a pricing, then of course have enterprise package.

00:18:32 Speaker A

OK.

00:18:33 Speaker A

Then #3 was also seven, so let's continue to to #4. So the the company offering the SAAS or wanting to offer their SAAS software in the future to many clients.

00:18:49 Speaker A

Think about introducing an automatic payment tool which they want to integrate in their website. After a potential client has chosen a package, let's say a subscription package. So.

00:19:06 Speaker A

This tool is for seamless billing and payment processing. So for basically collecting subscription fees either with credit card on a monthly basis or.

00:19:19 Speaker A

Yeah, something related to that. And also it checks the incoming payments automatically.

00:19:26 Speaker A

Do you think this is necessary or is it?

00:19:30 Expert 5

Yeah, if it offers all options. So again, talking from experience, if the to the companies are offering that they do not have option for yearly paying via via transfers then that is you know.

00:19:49 Expert 5

That is not OK, so if they have automatic payment plans where wire transfer is an option because they companies usually have some sort of some sort of policies on and with the cards and online payments and so on. So at least our our 6-7 companies that we work with we.

00:20:10 Expert 5

We have prohibited.

ddd311

00:20:12 Expert 5

Client and that client, but employees to use their online cards for online payments just because it it not, it's not manageable for if they're.

00:20:23 Expert 5

Thousand 2000 employees. Each department has a few cards and they decide to you just cannot. You know, you cannot manage, or the invoices or the outflows that will be there any you know those conversions between euro and US it possible to to?

00:20:43 Expert 5

Monitor, so I will take 7.

00:20:46 Expert 5

If it has.

00:20:47 Expert 5

All the parameters that like this billing payment tool should have so that would be option to pay of course online on a monthly basis when it automatically you get charged so then you have via transfer where wire transfer either on a monthly or on a yearly basis.

00:21:08 Expert 5

Where you get charged you.

00:21:09 Expert 5

Know in advance they log in in a.

00:21:10 Expert 5

Bank they pay.

00:21:12 Expert 5

I don't know about PayPal, but a lot of companies also like that. So just to offer more options than just online payments with the card.

00:21:23 Expert 5

Till 7.

00:21:25 Speaker A

OK, then I don't have many insights. Maybe you have but.

00:21:30 Speaker A

Is it a common thing for?

ddd312

00:21:33 Speaker A

For companies to pay with credit card monthly because I also heard that that's not even that big of a thing that many companies prefer to pay yearly because credit card fees are high.

00:21:48 Speaker A

Especially if you have high subscriptions or high.

00:21:52 Speaker A

High. Yeah, fees. You have to pay for using some kind of software. You have some insights there.

00:21:57 Expert 5

Yeah. So it, yeah, it depends with your deal with the bank, of course. I mean, what deal company has with the bank, but just in general, the administration process, it doesn't make sense because imagine a company with 50 subscriptions.

00:22:13 Expert 5

Or billing monthly or on the accountant side. It doesn't make sense because you need to get invoices for all of those.

00:22:21 Expert 5

Charges you need to then close those charges with all of that invoices and it's just not manageable. So I would say you know the majority I would if I we we are now developing a software as a service of course want will be three years, but we will definitely not have like subscription on a monthly basis.

00:22:42 Expert 5

We'll have all on the yearly option just because I would say that majority of those softwares are getting so complex now that you do not.

00:22:52 Expert 5

Even figure it out fully in a month so it doesn't make sense. It also you know it attracts bad for you in a company in a sense you.

00:23:03 Expert 5

Know ohh I use.

00:23:04 Expert 5

This product for a month I I don't see the point, blah blah blah and they didn't even go to the full, you know, features full extent, so.

00:23:13 Expert 5

I I would say just to have like yeah testing period. So let's say if you decide to test it Max two or three months on a monthly basis, you can get let's say one month full free and then three months on a monthly basis that is fine. But then if you decide to continue, I would only go with a yearly, yearly basis.

00:23:32 Expert 5

If it's not some sort of a software that you.

00:23:35 Expert 5

Know people will use one time on a project and then you know forget about it. So again, maybe it depends on what you're selling, but usually I would go with yearly, yeah.

00:23:48 Speaker A

OK.

00:23:49 Speaker A

Then also more of a system and tool based question is establishing interconnections between systems and tools that the company that sells the software the SAAS software uses themselves in order to manage all their processes or to to automate those processes.

00:24:10 Speaker A

Instead of handing data between tools manually or doing the processes manually instead of that just connecting.

00:24:20 Speaker A

They're different tools that they're using. For example their CRM or this as we talked about subscription management, payment tool, automatic payment tool and also the database that is usually connected to the application itself.

00:24:34 Expert 5

OK.

00:24:34 Speaker A

I'm connecting all tools with each other and establishing interconnections.

00:24:41 Expert 5

Yeah. So of course that is important. If so, ERP systems in general at least like the big one, especially if you lean towards Microsoft or you know so on they are quite expensive to implement internally. So of course if a company has that.

00:25:02 Expert 5

Then, of course, it's great that the software they are buying has that option.

00:25:07 Expert 5

But if it's I, I don't think there is so for but for small companies it doesn't really matter because if they don't have ERP implemented, you know they don't basically care for that feature. So again, it depends who you're selling, who are your target customers and so on. But for a larger companies, of course definitely that is.

00:25:27 Expert 5

I would say A7. It is just really hard to.

00:25:33 Expert 5



To get like for you as let's say, if you're a software provider, it is really hard to have some sort of API to be able to connect to all of the early systems in the world in the world because you have. Yeah, OK, fine. You have some, like, you know, larger, more known.

00:25:54 Expert 5

Usually each come each country has some you know own like local and it's really hard to target that specifically. So I would say instead of only focusing on those interconnections and API's and so on to also focus on quality export options because.

00:26:14 Expert 5

Even if they don't have ERP systems, they're using some sort of other internal evidences and if they can have a quality export from those platforms that are selling softwares, you know that really helps them to then manage their own evidences on their end.

00:26:29 Expert 5

So 7 but still OK.

00:26:34 Expert 5

Yeah, it is. It is definitely important.

00:26:37 Speaker A

OK, cool. Then let's continue to the next one.

00:26:43 Speaker A

Let's imagine you got a new customer, a new customer, subscribe to your.

00:26:51 Speaker A

Software on the website.

00:26:53 Speaker A

He he or she, let's say they immediately got access to your to your application because they already paid for the first month for the first year, whatever. And now they have access to your three application, they start, they are the admins for their company and so they.

00:27:12 Speaker A

Basically, get thrown into a predetermined step by.

00:27:20 Speaker A

ddd315

Onboarding process, which automatically leads the customer into his new software, setting it up by by himself, herself and UM yeah. Basically filling out the company profile for his organization and until it's ready to use and to.

00:27:41 Speaker A

You rolled out for, yeah, all the users in the the company that just bought the software from you.

00:27:48 Speaker A

UM.

00:27:49 Speaker A

So it's basically self-service onboarding area in the in your SAAS application for your customer. Yes. How do you think about that?

00:28:04 Expert 5

Yeah, I have a couple of that, so.

00:28:07 Expert 5

You know that way that.

00:28:08 Expert 5

You have described it now it is OK.

00:28:11 Expert 5

Pay if you have like a strong support team of active people of that's not robots but like people. Because if you throw a client in something with a bunch of step-by-step tutorial video material, if it's a reading material or forget it, nobody will read that so.

00:28:31 Expert 5

If you decide to go on how to manuals, it should have like some sort of video video presentation. It is best if you have step by step tutorial.

00:28:42 Expert 5

Those within within a platform that you know like some sort of training. So for example, not that they are, yeah, OK, they can be teaching on their examples, but if you have how to do those integrated in the platform. So for example for example, OK, step one, we will now create your account for and then.

00:29:02 Expert 5

A little pop up video comes out and they explain what you need to do and you can do with them. So when they are talking.

00:29:09 Expert 5

You they can do it then. OK, fine. But there will still be a bunch of cases where.

00:29:14 Expert 5

Your support will be over overburdened for definitely So what I suggest clients like.

00:29:20 Expert 5

How we should how?

00:29:21 Expert 5

Workflows should be for.

00:29:23 Expert 5

That I do not think that this self self or boarding onboarding is the best way as depends if you. So for example I'm not talking from a from a perspective.

00:29:35 Expert 5

Where good companies goal is to have like the best customer, their customer oriented basically so.

00:29:43 Expert 5

In that aspect, the process should be get a quote, talk with them what their needs are, have a demo with them so they can actually see how things work, and then if they decide that is for them, of course invoicing and then through onboarding process actually on the invoicing.

00:30:03 Expert 5

You can also offer them live trainings or you can have like those prerecorded trainings. So to give them an option because people companies usually know if they.

00:30:15 Expert 5

Have employees that are able to figure something out by themselves if they have capacity. If they have time, but usually there is a lot of requests for, hey, OK. Do you have we will need the three hour workshop. Can you show us some? You know the most frequent examples and so on. So I would say, OK, fine have that. But also make an.

00:30:35 Expert 5

Easy option to get into the to people that can.

00:30:39 Expert 5

Get in touch.

00:30:40 Expert 5

With you and to be able to help them because you don't need to help them for free so that the trainings can.

00:30:45 Expert 5

ddd317

Be a paid.

00:30:46 Expert 5

Option of course.

00:30:48 Expert 5

But have that option because a lot of people are willing to spend money if it's something that will make things easier for them.

00:30:55 Expert 5

So yeah, so I am not a fan of self self sustained warning just because it it affects some customer experience. Let's say even if it's not your fault if you come, if they're the the employees are not the best you know you know comprehending or whatever it will reflect poorly on your software because you know it's a word.

00:31:16 Expert 5

Mother. Yeah, I used it. But, you know, we had we had issues in the beginning, we decided not music it. It just doesn't make sense because if you get the client into the pipeline, it makes sense to make everything easier for them to help them to be in touch with them.

00:31:31 Expert 5

But for that of.

00:31:32 Expert 5

Course you cannot be a one man band, you.

00:31:34 Expert 5

Need to have dedicated for that. So so again fine seven with clear objectives and additional support team I would say and of course additional services with paid trainings or on boarding or something like that.

00:31:52 Speaker A

Pay and if you put it into perspective on the other process patterns.

00:31:57 Speaker A

How important is it then?

00:31:59 Expert 5

Sorry, I I cannot missed something broke.

00:32:02 Speaker A

And if if you put it into perspective, if you put this process pattern into perspective, if the other patterns we had so far, how important would you see it then?

00:32:13 Expert 5

ddd318

If if we were.

00:32:14 Expert 5

To change the process on how I was saying, I would like to have it then this self-sustaining thingy would be a tool because if you do things right from the beginning you don't need that. But if you do not have that you know demo and talk with them. If it's fully automated then it should be definitely A7 because then you need to make sure this is like.

00:32:34 Expert 5

100%.

00:32:37 Expert 5

Idiot proof. And so again depends. It's really hard, yeah.

00:32:44 Speaker A

But as I can hear from your from your opinion, you would rather focus on other process patterns that we talked about so far then.

00:32:52 Speaker A

If you couldn't do everything of these process patterns.

00:32:56 Speaker A

At the same time, you would focus on other things first, right, as I understand.

00:33:00

I mean me.

00:33:01 Expert 5

No, because if the if the client, if they are unable to figure out how to use the product then all of everything else, it doesn't make sense. So you know why would I focus on having the greatest billing to management.

00:33:15 Expert 5

If they won't, you know, if a client will cancel my subscription within a month. So if we go down that route then sure, then then then this can be a salmon and then subscription management tool can be a six. You know then we can rearrange some. If I didn't understand from the beginning if I should.

00:33:35 Expert 5

Rate them on a scale, or if I should just give them a number. If they they, can they be multiple sevens or do we need to have one?

00:33:44 Speaker A

ddd319

No, they could all if you all. If you feel like all of these process patterns are really essential.

00:33:51 Expert 5

Well, yeah, yeah.

00:33:51 Speaker A

Or transforming. Then there could all be a second.

00:33:54 Expert 5

For sure, yeah.

00:33:56 Speaker A

OK.

00:33:57

How much did?

00:33:57 Expert 5

We give the the ERP tools.

00:34:02 Expert 5

How? Which do you remember how?

00:34:04 Speaker A

Which one?

00:34:06 Expert 5

The five.

00:34:08 Speaker A

UMI think you also gave it the establishing interconnection. We are I think you also gave 7.

00:34:16 Expert 5

Then I would change this to to a 5 because if you don't have everything else, it doesn't make sense to focus on that, just on equality, equality, export.

00:34:25 Expert 5

OK.

00:34:28 Speaker A

OK, OK. Sounds good then.

00:34:33 Speaker A

ddd320

Yeah. So let's, let's continue to #7 then.

00:34:38 Speaker A

So let's say you your your customer, they have a dedicated person that takes care of the company account and he's basically the admin for that account.

00:34:52 Speaker A

So having a yeah specified admin area in your SAAS application for the admin of your clients company which allows that admin.

00:35:06 Speaker A

Basically, to manage the subscription details.

00:35:09 Speaker A

Upgrade to the subscription or downgrade the subscription. Whatever change the payment options.

00:35:16 Speaker A

And justice do contract or subscription related actions from within the application itself.

00:35:23 Speaker A

In the admin area.

00:35:26

How? How is?

00:35:27 Expert 5

That different from #3 just so I can understand it better, because I think it's really still.

00:35:32 Speaker A

#3 is basically.

00:35:35 Speaker A

A tool for the.

00:35:37 Speaker A

Software vendor themselves.

00:35:39 Expert 5

OK. And here is a person or some sort of.

00:35:42 Speaker A

ddd321

Yeah, #7 is for the customer. #3 is for the software vendor themselves, a subscription management tool.

00:35:50 Expert 5

OK.

00:35:50

OK.

00:35:50 Expert 5

Yeah, I think that if throughout the platform you make, you make things like understandable clear to use, you wouldn't need that. It is OK that you have just like a contact and support contact support e-mail. And I think that is fine again.

00:36:10 Expert 5

If that depends if you have. If this is like a Microsoft project, then of course you need to have a dedicated. So it depends on the size. It depends on the complexity. It also depends if this is some sort of standard, let's say for.

00:36:24 Expert 5

Jesus. Yeah, sure, fine.

00:36:25 Expert 5

Go ahead. But for just any user? No. So I.

00:36:28 Expert 5

Would give this like a.

00:36:35 Expert 5

OK.

00:36:35 Expert 5

Yeah, it it.

00:36:36 Expert 5

It depends because you you so the optimization part is you need to focus to have that so that user.

00:36:45 Expert 5

All of the companies that people using that are very, very busy. So for example if.

00:36:51 Expert 5

I need to change.

00:36:52 Expert 5

ddd322

Something it is easier.

00:36:53 Expert 5



For me to log in into the platform, just go to under my accounts to see how I can change here. Then just to try and call and write an e-mail or just to do something so I.

00:37:04 Expert 5

Yeah, more than that. I would focus on building a great platform, a great hub that would offer that options without any admins. Yeah, needed.

00:37:18 Speaker A

OK. Umm.

00:37:21 Speaker A

Let's continue to the next one.

00:37:24 Speaker A

And that's the introduction of a self-service customer service. It's again related to.

00:37:33 Speaker A

Yeah, I would say number six, but this time it's more like the software is already running in the company.

00:37:40 Speaker A

And you have to make a change.

00:37:43 Speaker A

Regarding the usage of the software, how the way you use it is changing.

00:37:48 Speaker A

UM.

00:37:49 Speaker A

So you're gonna not write an e-mail to the support of the the company of the software company, but instead you're going to make the change yourself if that's possible. So if the software company makes it possible, or do you think they should make that possible? Do you think it's a good idea to do that?

00:38:09 Speaker A

To let your customers yeah, make changes independently in the way they use the software.

00:38:19 Expert 5

It is again a tricky question, because if those changes are something that can be clearly you know if you do something wrong, will we see it. The mistake now or will it show in three months? So it depends on what effect do those changes have. So I will definitely say sure, yeah, it's great that.

00:38:39 Expert 5

They can have changes, but to a certain extent so, or maybe just to be.

00:38:45 Expert 5

Clearly communicated with warnings for what to what, everything to what those changes are connected and so on. Because if you have some sort of financial, financial software, when you change some sort of, I don't even know why anything basically. Yeah, let's say that you change the amount or the work for something that can then.

00:39:05 Expert 5

Affect the conversion rates or whatever. That can then affect on your balance sheets on your tax, you can have a tax inspection.

00:39:11 Expert 5

In your so.

00:39:13 Expert 5

It depends, but if it's just something to change a setting in a Photoshop to go from lighter to lower light, then of course, yeah.

00:39:21 Expert 5

So it depends on a on a on the impact of those changes. But I would say yeah to that's to be rational about it. So 6.

00:39:33 Speaker A

OK.

00:39:36 Expert 5

It would just a feedback. It would be really great if you had, let's say 3 scenarios of software.

00:39:44 Expert 5

And to respond to each software so that you let you know, because it's really it's it's.

00:39:51

Yeah, like.

00:39:52 Expert 5

Complex answers because it depends, so maybe of course not to change it now, but in the future if.

00:39:58 Expert 5

You will be in any.

ddd324

00:40:00 Expert 5

Of those fields just to.

00:40:01 Expert 5

Have a simple software.

00:40:04 Expert 5

The I don't know. I see. And that is easier to answer on actual cases.

00:40:10 Speaker A

Yeah. The thing is, I'm writing my thesis in.

00:40:13 Speaker A

Collaboration with one soft one software.

00:40:17 Expert 5

OK, that's great.

00:40:18 Speaker A

Software company that is trying to change their.

00:40:24 Speaker A

The software towards or the processes towards SAAS so.

00:40:28

And what are?

00:40:28 Expert 5

They doing what is the software?

00:40:31 Speaker A

It's so I don't want this to be like advertising session. That's why I don't include anything about that company in my in my.

00:40:38 Expert 5

OK. Yeah.

00:40:40 Speaker A

Questionnaire also not to be like biased or anything, but it's like a it's a desk sharing company. I don't know if you heard about that. It's like it's B2B and they sell software.

00:40:53 Speaker A

ddd325

To other companies that are doing like hybrid work, Oregon, flexible office, whatever. So that the employees of that company that use the software can book their desks for the day they want to be there or they can book meeting rooms or they can book a parking spot.

00:41:11

Oh, that's good.

00:41:11 Speaker A

For the day that they're there and umm, so it's basically it's a small to.

00:41:17 Speaker A

Medium software, enterprise and UM.

00:41:22 Speaker A

Yeah, B2B and they can have a lot of small clients who only have.

00:41:28 Speaker A

10 desks in their office and 20 employees, or also they can have massive.

00:41:34 Speaker A

Massive firms with a lot of employees with a lot of desks and meeting rooms and stuff.

00:41:39 Speaker A

Like that.

00:41:40 Speaker A

So yeah, so also I didn't want to make my my questionnaire to bias by including that company and.

00:41:40 Expert 5

OK, great.

00:41:49 Speaker A

So I wanted to keep it more general.

00:41:50 Speaker A

To not like.

00:41:51 Expert 5

Yeah, yeah, sure, John, just so I can.

00:41:53 Expert 5

Picture because then.

ddd326

00:41:56 Expert 5

Mostly of my answers will.

00:41:57 Expert 5

Be depends. OK. OK. OK then.

00:42:07 Speaker A

Yeah, the 9th point is the development of an extensive FAQ help section, which, UM, clears up many different questions on how to use the software. Different use cases most frequently asked questions. So yeah.

00:42:27 Expert 5

I would.

00:42:29 Speaker A

On the website or in the application itself to to search for the users.

00:42:34 Expert 5

Instead of having like expensive frequently asked questions sections with a bunch of texts and so on. Since we are in this digital age of AI, I will include like those chat bots.

00:42:50 Expert 5

Support chat bots.

00:42:51 Expert 5

Where you can type what you want from them.

00:42:54 Expert 5

And they can try and help you and to navigate you to the correct. This frequently asked questions section. So just to give them a bit more option.

00:43:05 Expert 5

To browse through. But yeah, sure, why not. I mean, that is never. This is never. It's never too much of those. If they are quality written. But if you just have a bunch of something that like development documentation and so on, then nobody will read that.

00:43:25 Expert 5

You have really quality answers step by step.

00:43:28 Expert 5

Right then. Yeah, of course. I will say go for it. Maybe also because, you know, maybe also it could be chat, but that would make easier to search or to provide answers. So if it's something if it's a two line, 2 sentence answer, this chat robot can provide it to you. But if it's an extensive process behind it, it will guide you to the correct page. ddd327

00:43:49 Expert 5

In this will frequently ask questions section and you would, you know save time on scrolling and searching and so on.

00:43:57 Speaker A

So seven, OK. And you already said chatbot, I mean that's the that's the 10th point. And so if you have to consider both, what would you say?

00:44:05 Expert 5

Oh yeah, I see that.

00:44:13 Expert 5

It's so they go, they go, they go.

00:44:16 Expert 5

One, they go in hand. So yeah. So let's say.

00:44:18 Speaker A

And OK.

00:44:23 Expert 5

Again, if you have 10.

00:44:25 Expert 5

Of those frequently ask questions, you.

00:44:27 Expert 5

Don't need a chat bot, but if.

00:44:29 Expert 5

You have a.

00:44:29 Expert 5

100 If your software is that complex, then yeah, so depends. Again, I don't know how, but OK, let's say frequently ask questions. Yeah, definitely urgently 7 chat bot, let's say 6.

00:44:43 Expert 5

If you recognize the need for that.

00:44:47 Speaker A

OK. Because do you think probably when it's getting too technical?

00:44:51 Speaker A

In the FAQ section that it might not even be helpful, and then they need to like contact a real person.

00:45:00 Expert 5

Depends who the user is. If the user is like some person with the development and they are searching for a development question, then it should be there. But if that is something that.

00:45:12 Expert 5

The general general.

00:45:14 Expert 5

You know, I would, I would go layers.

00:45:16 Expert 5

By layer so.

00:45:16 Expert 5

I would have like another question technical question. You know development and other specification maybe also like those ERP integrated questions you know just to have them categorized and then section layer by layer and of course.

00:45:33 Expert 5

In a certain level, you would need to include support support agents, so it depends on how complex it get.

00:45:40 Expert 5

But the important thing is.

00:45:41 Expert 5

To make to make them an option to contact support.

00:45:46 Expert 5

On every level.

00:45:47 Expert 5

Because I see that is really, really.

00:45:49 Expert 5

A problem when you need to.

00:45:51 Expert 5

Call somebody and there is or. You just need to contact you know. Just have a question that you cannot find and then you need to go through 10,000 layers of you know you got to support all you need that. Ohh maybe those 230. No. Those two. Three. No. So OK, there's not here. Let's call them and you.

00:46:10 Expert 5

Can always navigate them.

00:46:11 Expert 5

Next to the this contest question section. So yeah.

00:46:15 Expert 5

Just send them a link or how or.

00:46:18 Expert 5

OK.

00:46:19 Speaker A

OK, cool that.

00:46:22 Speaker A

These are the 10 process patterns. Now you have the chance to.

00:46:27 Speaker A

Tell me if I missed something that's also important that I didn't include for a successful business transformation. And if we look at that scenario, so.

00:46:39 Speaker A

Anything, let's exclude UM bringing the code into the cloud and ensuring the data security when we include that exclude that.

00:46:48 Speaker A

Anything that would still make sense to add here?

00:46:53 Expert 5

So I like. I already went through a bit, so it's really important to understand who your clients are and it's really important to understand.

00:47:02 Expert 5

Where you wanna be. So if your goal is to have something sustainable, something you know in a.

00:47:09 Expert 5

Not like like it is.

00:47:10 Expert 5

Now or however.

ddd330

00:47:12 Expert 5

Then of course make processes like.

00:47:14 Expert 5



You have now with a bit of help of automation, but if.

00:47:17 Expert 5

You strive to have a multinational, you know, busy.

00:47:21 Expert 5

And you are now doing majority of manual work. Then of course you need to strive to automate as much as you can. Again, you need to decide, do you want to be like product centric or you want to be customer centric company.

00:47:35 Expert 5

It depends you.

00:47:35 Expert 5

Have you know companies that really focus on?

00:47:37 Expert 5

A product and they.

00:47:39 Expert 5

Don't even deal with.

00:47:40 Expert 5

Customers that much they are like we have that.

00:47:42 Expert 5

Product, we know how it works, we keep.

00:47:44 Expert 5

Your documentation figure it out, or you can have a companies that.

00:47:48 Expert 5

Are like, hey, this is a product it.

00:47:49 Expert 5

Was great. OK, I get it.

00:47:52 Expert 5

ddd331

You know each person thinks differently. We will help you. We will guide you. It depends if there is no right or wrong way. It is just the way you companies need to decide and then how you set up processes kind of depends on that. So that that is all what I would say because on then on every question it kind of depends to a certain degree.

00:48:12 Expert 5

You would implement any any of those, but yeah, I would definitely change the process for, you know, those enterprises to have them quote. And the more presentations first before making them before they can purchase this on.

00:48:29 Expert 5

The website so to eliminate option of automatic buy for enterprises, I would say the first to have a, you know call or just some sort of correspondence with them to see because then you can also include those packages you know it's like it depends if you have 10,000 to 20,000 people of course we will give you a discount.

00:48:49 Expert 5

We will give.

00:48:50 Expert 5

You I don't.

00:48:51 Expert 5

Know and you know you can also have different functionalities for different packages so depends.

00:48:57 Expert 5

Yeah, you know. But otherwise, yeah, I think.

00:49:01 Expert 5

That would be.

00:49:02 Expert 5

OK.

00:49:05 Speaker A

If you have any insights or have any trends observed in lately for.

00:49:11 Speaker A

The SaaS industry, do you have anything?

00:49:13 Expert 5

Yeah, I. So I saw. I see that there are a lot of companies are focusing on you know a lot of focusing adopts right for forward with providing contact information. <sup>ddd332</sup>

00:49:26 Expert 5

Which is really a problem.

00:49:28 Expert 5

Because I don't know how they don't see it, but.

00:49:32 Expert 5

They are losing clients like that, so that is what I see. And I also see it's so really hard to get in contact with that and really there is so much of the generalization. So how to say it like that it you cannot assume that every client has the same.

00:49:52 Expert 5

So they are not making the diverse packages, they have 5 packages, but there are maybe two things different than on the previous package and that is just so that the potential client would opt to the maximum package. You know, because if they do percolation, they can see. Oh, but this one makes more sense.

00:50:12 Expert 5

In terms of finance, in terms of what we got, so maybe just like suggestions to if you do have packages, it does make sense to really have a difference, not just one.

00:50:23 Expert 5

Or two features.

00:50:25 Expert 5

Yeah, that otherwise I I.

00:50:27 Expert 5

Think I told you everything through.

00:50:29 Expert 5

The through the questions.

00:50:31 Speaker A

OK. So you you say it's really difficult to find a fitting package for you for a company?

00:50:41 Expert 5

It depends. Yeah. Yeah. Like a fitting in terms of.

00:50:45 Expert 5

That you know from the feature list that you know.

00:50:48 Expert 5

ddd333

Exactly what you.

00:50:49 Expert 5

Need because those functions can be you.

00:50:50 Expert 5

Know they they usually.

00:50:52 Expert 5

Make some sort of marketing nice play with words for features.

00:50:57 Expert 5

Which are not.

00:50:58 Expert 5

Straightforward. So just to have like a clear feature list of.

00:51:01 Expert 5

What? Everything. That's what everything is to make you know. Companies. Easy, easy way to decide what they actually mean.

00:51:10 Speaker A

OK. Yeah, that's that's definitely something and didn't think about so far.

00:51:18 Speaker A

Then I'm going to stop the recording. Now. I think you gave everything.

00:51:21 Speaker A

You had.

## E.6 Expert 6

## Transcript Expert 6

00:00:00 Speaker A

I'm on my phone. OK. Yeah. So I think you heard my my questions. Yeah. So I'm just let you talk.

00:00:11 Expert 6

Yeah, from a background perspective, you know I've been in, in working with, you know in, you know, software for about 40 years.

00:00:19 Expert 6

And have you know, was was education educationally? You know, I I got my degree in applied math and computer science, so I spent quite a few years actually developing software.

00:00:35 Expert 6

And back back then it it was, it was all box software or or or you know it's, you know, instead of box software, you know, I tend to think of it more as on premise software because they were, you know to me box software is like Microsoft Word or.

00:00:55 Expert 6

Word, Excel and and any of those packages that are sold primarily to consumers.

00:01:03 Expert 6

You know, selling to businesses, it was really less box software or but it was, it was tended to be on premise, on premise solutions that were installed on servers. You know at a customer site and they they would typically procure hardware, put it into a server room.

00:01:24 Expert 6

And then you know, we would come in.

00:01:26 Expert 6

And install the software.

00:01:28 Expert 6

And and that would be their license copy of it, yeah, so.

00:01:37 Expert 6

Most of what I did was I the software that I was primarily involved with was in and around self-service customer service with the telephone. So did work many years doing interactive voice response development.

00:01:56 Expert 6

And and that really kind of.

00:01:59 Expert 6

Morphed into customer service software. You know that this, this, you know, I'm I'm dating myself. But this was before the web. And so. So the way the companies would typically interact with their customers if you know again large.

00:02:19 Expert 6

Companies like banks and insurance companies and you know, the way they would interact was really just the telephone.

00:02:20

MM.

00:02:28 Expert 6

So, so companies, you know, in the in the 1980s, they, you know, started to realize that certain things, simple tasks could be automated with, you know, by having playing a prompt and and having people respond by pressing a key.

00:02:48 Expert 6

And it and it was very easy, very.

00:02:50 Expert 6

Easy, you know.

00:02:51 Expert 6

For computers to understand what key was being.

00:02:54 Expert 6

Pressed. So no, no real magic there and.

00:03:00 Expert 6

And that that.

00:03:00 Expert 6

Slowly evolved, you know, in the 19.

00:03:03 Expert 6

90s The the the world wide.

ddd337

00:03:05 Expert 6

Web started, you know.

00:03:07 Expert 6

Becoming into it, you know, into its own and and web servers started showing up and originally they were static, but very quickly they you know they they evolved to to also being able to dynamically generate content and retrieve information from.

00:03:27 Expert 6

External systems. So the web became another.

00:03:32 Expert 6

Panel for delivering self-service to to customers and and you know I work in in you know in that space delivering telephone based services and web web-based services for.

00:03:53 Expert 6

Banking, you know, banks and insurance companies and and healthcare companies, any any company that had a that would put was predominantly business to consumer.

00:04:08 Expert 6

You know, you might have millions of customers, but you know, having a call center you, you know, you might only have a couple 100 people. So you know we looked for ways to offload, you know, the phone calls to the live to to the.

00:04:26 Expert 6

Live customer service reps.

00:04:27 Expert 6

With with automation and then you know somewhere there was always.

00:04:36 Expert 6

You know, there were always.

00:04:39 Expert 6

Services that were outside of the of the of the of the, I guess installed software. They didn't call it.

00:04:48 Expert 6

Software as a service.

00:04:50 Expert 6

Arguably it was more. It was really just more kind of an outside service and information would be.

00:04:59 Expert 6

ddd338

Transferred typically via files, so it was a batch file.

00:05:04 Expert 6



Would be sent, you know via, you know either an FTP server or sometimes they were actually hand delivered on floppy disks, but but that was how data moved from from a company to, you know, we call them service bureaus at the time and they would be completely disconnected. But then.

00:05:25 Expert 6

You know, as the Internet grew, you know, connectivity became a permanent thing. So you could always be connected to other companies via the Internet. And then companies started to shift.

00:05:39 Expert 6

To you know.

00:05:40 Expert 6

Instead of instead of having.

00:05:42 Expert 6

To install software on premise.

00:05:45 Expert 6

And and with that the.

00:05:49 Expert 6

With that, the kind of all the updates that that would have to happen. You know, I worked in, you know, started working for companies that were.

00:06:00 Expert 6

You know, offer their services, you know, without selling the software but on premise but or without delivering software on premise, but rather taking advantage of the Internet and and kind of the browser as an interface and delivering that really as a SaaS type of solution so.

00:06:20 Expert 6

Even even if it was self-service, you know you know now we could deliver it from a a cloud based website website that that served up content or cloud based telephone system that answered the phone and did the same things.

00:06:41 Expert 6

As as what was previously done on on a customer's premise and and you know customers, could you know that there were you know they would do price comparisons between the two and.

00:06:56 Expert 6

ddd339

It you know you, you eliminated the need to have to buy hardware. And generally speaking you know the rule of thumb was you know after about four years the the pay as you go or the software as a service model would you know, you know could could become a little more costly.

00:07:16 Expert 6

At the four to five year Mark, but it also afforded it also afforded companies the ability to to switch vendors. You know, if they didn't, if they didn't like the service that they were getting.

00:07:32 Expert 6

That's what I've been working with and and really as of you know, the last 15 years it's, you know, for me personally it's all been cloud based services.

00:07:45 Speaker A

OK.

00:07:45 Expert 6

So nothing installed on premise.

00:07:48 Speaker A

So seems like you're you're a perfect candidate for this interview. That's that's great to hear. We get into more details later on. Then when we look also at the process patterns. But for now, I've seen that you're working at Xanadu. It's like a tech, uh, consultancy firm.

00:08:07 Speaker A

Would you consider this to be a small, medium or large enterprise? And which size do your clients have?

00:08:15 Speaker A

Just a ballpark.

00:08:17 Expert 6

I I would say I would would say we're a small firm. We're we're we're about two hundred 250 people. So it, you know compared to compared to a Deloitte or some of these big large you know consulting firms that have thousands of people.

00:08:25 Speaker A

OK.

00:08:36 Expert 6

We're we're pretty small.

00:08:38 Speaker A

Compared to them, yeah, for.

ddd340

00:08:39 Speaker A

Sure. Yeah.

00:08:42 Expert 6

And but our customers, our customers tend to be fairly large, I'd say, I'd say most of our customers you know and and they're predominantly insurance companies probably set 70% of our customer base, our insurers.

00:09:03 Expert 6

And so, you know, they've got, you know, revenues.

00:09:08 Expert 6

200 + 1,000,000 so that they're they're pretty good sized companies and some of them are are much larger than that, but but you know, we tend to work with companies that are 200 million in revenue and above.

00:09:21 Expert 6

Just because they'll have, they'll have the budget to to bring in consultants and and do do a lot of project work. We do. We are we are, we're called the consulting firm but but in many ways where we do more professional services that that consulting.

00:09:22 Speaker A

OK.

00:09:42 Expert 6

We we want to we use consulting as a way to.

00:09:46 Expert 6

Develop new relationships and those tend to be, you know smaller, you know shorter engagements but and and fewer people. But then if we do the right job for consulting, then oftentimes that will lead to a longer term system implementation to actually.

00:10:07 Expert 6

You know, go deliver or you know, a solution that we have proposed.

00:10:12 Speaker A

OK. Yeah. Makes sense. So the consulting is just the first step in the door, let's say. And then behind that there's a bit of more technical or more hands on work from your side than.

00:10:18 Expert 6

Yeah, exactly.

00:10:24 Expert 6

ddd341

Yeah, and sometimes that's all it ever becomes. Sometimes. That's all it ever is. But. But, you know, we like to, you know, parlay that into into a a project engagement.

00:10:24 Speaker A

Coding or whatever.

00:10:36 Speaker A

Yeah, makes sense if you already have them as a client, why not make some more money from them, so to speak. But I think that's that's.

00:10:46 Speaker A

How it works, yeah.

00:10:48 Speaker A

Yeah. OK, then let's continue to the main part of of this interview. The process patterns. So as you already.

00:10:56 Speaker A

Saw their ten process patterns which could or could not, depending on your verdict, be helpful for transforming the business processes. So not a technical aspect of like SaaS, so getting the code into the cloud for example, it's not part of this whole thing, it's just about the business processes.

00:11:14 Speaker A

UM of the business transformation from the current status, which is, yeah, like on premise offering on premise software towards UM offering SAS software.

00:11:28 Speaker A

And yes, so I will ask you about them. I will, M yeah, show you the the patterns one by one and each pattern I would like to first of all rank. I would like you to rank them from 1:00 to 7:00. Which UH-1 means that it's not essential or applicable at all for the business transformation and seven means it's very essential for this kind of transformation.

00:11:54 Speaker A

And then I would also like you to explain and justify your answer, and if you have some knowledge about each of the patterns or best practices then also it would be cool if you could share those and also some possible limitations of the process patterns.

00:12:11 Speaker A

OK then so far, so clear. Let's let's begin with the first one.

00:12:17 Speaker A

The first pattern is introducing subscription based software packages on your own website or the the software companies website in order to have transparency and pricing and the features and is closing what customers get at each price tier.

00:12:39 Expert 6

It's it's interesting, you know, do I I do think that is I do I and I will just tell you up front I think most of these things are important for you know are pretty important for business transformation. But so so this one you know absolutely I think.

00:12:57 Expert 6

You know, gone are the days where.

00:13:00 Expert 6

Gone are the days where.

00:13:04 Expert 6

You know, companies can just say, you know, be very vague about what the product is that they're offering or the solution is that they're offering and it's also.

00:13:18 Expert 6

You know, particularly once you move off of, you know, in-house software and when companies move away from having to own all their own hardware.

00:13:34 Expert 6

It becomes, you know, they don't have to. You know, it's easier to justify switching to a vendor that might provide a better price point or a better feature set. So I do think it's important to.

00:13:49 Expert 6

To be very transparent and and make sure people understand what they get at at different tiers of a solution or or features, because if if they're not, if they're not doing that you know they're going to face somebody else is and in fact probably most people are so.

00:14:09 Expert 6

So that's why I think.

00:14:12 Expert 6

You know, if you.

00:14:13 Expert 6

Couple that with the fact that it's it's much easier today to switch vendors than it used to be. I I think just just to to be competitive, that's almost you know I use the term table stakes and I'll use that several times.

00:14:32 Expert 6

ddd343

In order to in order to be taken seriously.

00:14:36 Speaker A

OK. So you would give it a?

00:14:40 Expert 6

So I would give it a six.

00:14:41 Speaker A

Six OK. Yeah.

00:14:47 Speaker A

Makes sense to me for sure and.

00:14:50 Speaker A

So then the the next, the next pattern is a little bit connected to.

00:14:56 Speaker A

That so, which is basically offering also an enterprise package where you give your customer which might be a bit bit bigger for sure. Umm, if it's an enterprise, UM hands on work and personalized contact and just.

00:15:16 Speaker A

Helping the the customer throughout the whole customer journey with UM, yeah.

00:15:21 Speaker A

Human resources with yourself, with actual people.

00:15:26 Expert 6

Well, I I think.

00:15:29 Expert 6

Again, that almost goes.

00:15:31 Expert 6

Goes without saying, I tend to you.

00:15:34 Expert 6

Know have as.

00:15:35 Expert 6

I said before, I tend to primarily deal with larger size customers so, so I know, I know that you know, I'm just going to pick a software pack. I'm sure you've heard of sales force as you know, as a as a big SAS.

00:15:52 Expert 6

Platform and you know, so we do we we we do Salesforce you know projects so and and again they tend to be for large companies but but you don't have to be a you don't have to be a large company to.

00:16:02 Speaker A

OK.

00:16:06 Expert 6

To buy Salesforce. But you know if you are you know, which means you're going to, you know, have more seats and and therefore spend more money it it comes with certain things. So so clearly just like just like a car you can buy a car for \$15,000, you can buy a car.

00:16:26 Expert 6

For \$50,000 and you get different different levels of service and I think I think as a customer, your expectations are you're going to get different levels of service. You know depending upon which car you ultimate.

00:16:39 Expert 6

You ultimately buy.

00:16:40 Expert 6

They're they're both going to take you. They're both going to take you to, you know, shopping and to the store. It's just a question of what, what do you like? So relating that back to software, if you're buying an entry level kind of the if you're coming into a software.

00:16:59 Expert 6

Package at entry level or you're comfortable you're comfortable using the out-of-the-box.

00:17:06 Expert 6

Configuration. Then you may be, you may say, well, I don't need to spend more money because I don't need the professional services and I don't need, you know, kind of a a weekly status call.

00:17:19 Expert 6

With, you know an.

00:17:20 Expert 6

A A service advisor to to help me. I'm I'm perfectly capable of doing it all myself and.

00:17:27 Expert 6

The product, you know the base configuration.

00:17:29 Expert 6

ddd345

To the product meets all my.

00:17:32 Expert 6

Needs, so I think it's it's important again, you know that you know with that pricing those different tiers of pricing that it's it's understood what people are going to get with that you know with with the different tiers that they purchase.

00:17:50 Expert 6

I do think that cloud based software or SaaS software makes it easier to deliver on that.

00:17:58 Expert 6

Then then package starts. You know you know, out-of-the-box or or box software I got to.

00:18:05 Expert 6

Use your term.

00:18:07 Expert 6

It it's it's easier to deliver that now even, but even box software I've seen over the years, you know, has has different you know features.

00:18:17 Expert 6

That you can.

00:18:18 Expert 6

Unlock, but they're all they're all there, and they just may be locked. And if you go and pay, you know, additional licensing fees, they'll give you a, you know, a another. They'll give you a code to unlock some additional capabilities. So.

00:18:34 Expert 6

They you know this.

00:18:35 Expert 6

This notion of this, this idea of, you know, different price points for different amounts of functionality has been there even in box software. But I do think it's a lot easier to deliver and.

00:18:49 Expert 6

You could get.

00:18:49 Expert 6

You know finer, you know, a finer granularity.

00:18:54 Expert 6

ddd346

With the features that you want with kind of the SAS software.

00:19:02 Speaker A

Yeah, yeah, totally, totally. Makes sense.



00:19:03 Expert 6

That makes sense.

00:19:04 Expert 6

So if if you if you want, if you want me to score it, I'll score.

00:19:08 Expert 6

To six. Two because.

00:19:09 Expert 6

It's very much tied with with kind of you.

00:19:12 Expert 6

Know like you said, the the first, the first model.

00:19:16 Speaker A

OK, OK, cool. Then let me move on to the next one. Umm. So let's assume that the software company has their different.

00:19:27 Speaker A

Subscription models on their website which potential customers can subscribe to, and now they also think.

00:19:36 Speaker A

The introduction of a subscription management tool and this subscription management tool functions as like a central hub for managing all subscription related activities including from the start the sales. Also when the customer does changes to his or her subscription.

00:19:55 Speaker A

And or terminates the subscription and also checking for example payments which could be done in one subscription management tool. What do you think about the software company introducing this kind of tool for their transformation towards SAS?

00:20:15 Expert 6

So I I think I think that there's some value in it. I I wasn't, you know I didn't rate it as high as the others because.

00:20:28 Expert 6

ddd347

Primarily because I think that you know if if you give people the ability to totally control their subscription, you run the risk of them just kind of disconnecting or ending the service and not even which, which they're obviously entitled to do.

00:20:47 Expert 6

But not even you know some. You know, maybe having the opportunity to understand why.

00:20:55 Expert 6

So that's why you know, and people may, you know, end a subscription for.

00:21:01 Expert 6

A variety of.

00:21:02 Expert 6

Reasons. Maybe. Maybe the customer service is not, you know, satisfactory. Maybe, maybe it's just too expensive, you know, for for the value delivered, maybe it's.

00:21:15 Expert 6

You know something that has nothing to do with.

00:21:19 Expert 6

You know the service itself, but but there's extenuating circumstances. So I think you know, that's why I didn't rate it as high. I think you know, there should be, you know some, you know, certainly some method to some way to.

00:21:39 Expert 6

Affect your.

00:21:40 Expert 6

Option, but it might not be to have full control over it. It might be to add features. It might be to, but it it might be to you know add new capabilities, but not necessarily not necessarily totally disconnect or.

00:21:59 Expert 6

Walk away from the service.

00:22:01 Expert 6

Without, you know, at least.

00:22:02 Expert 6

First, having like almost like an exit.

00:22:05 Speaker A

Hmm, OK.

ddd348

00:22:05 Expert 6

You know.

00:22:06 Expert 6

When, when? If.

00:22:07 Expert 6

You leave a company because I think most you know companies you know that are are striving to improve, always want to know, you know what's motivating people, you know in their decisions. So. So I I would rate it as I don't consider it you know a super important.

00:22:25 Expert 6

Thing to have, and particularly you know, we were talking yesterday about different tiers of service if.

00:22:32 Expert 6

You know, if I'm if I'm spending a lot of money with an organization, I probably, you know, have an account manager that I deal with on or should be dealing with on a somewhat regular basis, whether it's once a quarter or once a month or once every you know.

00:22:53 Expert 6

Six months. But but I want to have that that level of you know that personal relationship, you know, beyond just being able to control the software and and walk away, you know, completely unannounced.

00:23:08 Expert 6

So I I would rate.

00:23:09 Expert 6

It I guess A4.

00:23:11 Expert 6

This is how I had rated it.

00:23:14 Speaker A

OK.

00:23:15 Speaker A

UM.

00:23:18 Speaker A

You said something about you want to have the contact with an account manager.

00:23:25 Speaker A

ddd349

That would be then for for enterprise customers, right? So if if they if it's like a small customer or a customer that decided on just the subscription package which is not enterprise the top tier.

00:23:39 Speaker A

Package then.

00:23:41 Speaker A

Do you think like? Yeah, then I guess an account manager is not important, which is then say that the subscription management tool would be more helpful to just track those customers that you don't really interact with personally if they upgrade their their UM.

00:23:59 Speaker A

Yeah, their subscription. For example, if they have new features that you don't have to deal with that actively of giving them new features or they they're emailing you about, OK.

00:24:08 Expert 6

Yeah, I I think that I.

00:24:09 Expert 6

Think that's important?

00:24:12 Expert 6

Yeah. And I you know, again some some ability to to manage your own subscription, particularly if it's, you know, enabling new features. I I think it's helpful and and you know would want that. So I guess it would be you know if I had to really boil it down, you know.

00:24:32 Expert 6

Being able to fully walk.

00:24:33 Expert 6

Away or terminate the subscription without.

00:24:38 Expert 6

Again, the benefit of having a live conversation I you know, I I like the idea of having to, you know, at least it's OK to walk away, but I'd at least like to kind of, you know, understand what you like and and more importantly, you know, why are you walking away or ending the relationship?

00:24:57 Expert 6

And and if you if you don't, you know, enforce that. Yeah, I think the company would lose out and lose some that, you know, lose some valuable information by not being able to capture that.

00:25:12 Speaker A

So also in your mind, a questionnaire wouldn't be enough that they would just fill out as like, OK, they're going to say, OK, I'm going to cancel the subscription and then there's a pop up window that says, OK, you're leaving, can you fill this out? Do you think it's more helpful to talk to them in person or do you?

00:25:30 Speaker A

Think it's worth it.

00:25:31 Expert 6

I I think it's I think it's more helpful to talk in person. You know, if I'm.

00:25:31 Speaker A

Spoke to anyone in person.

00:25:41 Expert 6

If I'm.

00:25:43 Expert 6

You know, I'm just not even gonna bother, you know, probably not even bother with the A a a survey or or a form. It's like, OK, I'm just gonna disconnect and I'm done.

00:25:54 Expert 6

You know, whereas if I have to talk to, you know, talk to you, I'm I'm, you know, I'm. I'm maybe willing to vent. I may feel good about venting if I'm particularly upset about something you know, which is why I'm terminating the relationship. And so so again it it's just.

00:26:14 Expert 6

It it's a matter of, you know, just personal preference. As I said, I I think having some subscription management capability is is worthwhile.

00:26:26 Expert 6

But but I I don't view it as as important as you know, some of the other things you know, particularly that in some of the questions that are you know are still to be discussed. I I think some of that you know is is.

00:26:42 Expert 6

Way more important.

00:26:43 Speaker A

OK, cool. Then as you said, let's continue to the next parts.

00:26:50 Speaker A

So then the 4th process.

00:26:53 Speaker A

UM is the introduction of an automatic payment tool<sup>ddd351</sup> an automatic payment tracking tool, which is a tool for seamless billing and payment processing, which is basically collecting the subscription fees. For many SAS it seems to be monthly.

00:27:13 Speaker A

And then checks incoming payments on the bank account automatically and UM yeah, automates a bit. That process of collecting payment and fees.

00:27:23 Speaker A

What do you think about an introduction of this kind of payment tool?

00:27:27 Expert 6

Ohh I I yeah I'm I'm a I'm a big fan of it. I mean, you know, again I I'm I'm a little older than you, but I still I don't like writing checks anymore. I don't write like, you know having to mail envelopes and. And so I would much rather, you know pay online.

00:27:47 Expert 6

You know and and.

00:27:49 Expert 6

You know some things, some things I.

00:27:51 Expert 6

Push the payment.

00:27:52 Expert 6

Went out other things where you know that I I know are, you know, my monthly electric bill. I just, you know I'm I'm comfortable. You know the company's been around for a long time and I just have them automatically deducted so I think it's it's if if you are doing a a monthly subscription.

00:28:13 Expert 6

Having that option.

00:28:16 Expert 6

Is is great. Now I would say I would say that you know if if it's you know, 10s of thousands of dollars, I'm not sure the company a company is going to you know automatically let that be paid. So they may not have.

00:28:35 Expert 6

Automatic payments, but they probably have at the very minimum they'll still allow the the, the buyer or the purchaser to to electronically push the payment rather than having to, you know, send a check. I'm a, you know.

00:28:54 Expert 6

ddd352

Anything that eliminates paper and, you know, mail and stuff like that. I'm all in favor of.

00:29:03 Speaker A

OK.

00:29:04 Speaker A

Yeah. So that's also what have concern.

00:29:05 Expert 6

I I would, I would. I would rate that I would rate that again a A probably a 7-6 or seven. You know I think that's very important you know to not have to make somebody you know send a a paper invoice.

00:29:21 Speaker A

Yeah. Or mail invoice? Yeah.

00:29:24 Expert 6

Mail and their check their payment.

00:29:27 Speaker A

Yeah. I also thought about like that probably for like big transactions, it wouldn't be.

00:29:33 Speaker A

Like, UM, super helpful to let big companies just pop in their credit card and there's subscription and then deduct monthly a lot of money because the fees are too high. But I guess that would be then more for the enterprise packaging where maybe they don't really have to put in their credit card for monthly.

00:29:53 Speaker A

Deduction, but like negotiate, like maybe yearly or.

00:29:54 Expert 6

Right it it's probably it's probably a bank transaction rather than a credit card transaction and like I know for example that I I, I live in a in a A community here that has a homeowners association. I'm on the board and like we get a monthly bill for our cable and Internet.

00:30:16 Expert 6

From you know, the cable and Internet provider and it's about for the entire association. It's about \$22,000 a month.

00:30:24 Expert 6

So we don't, we don't let them automatically take that out of our, you know bank account, but we electronically pay it. So and and it's you know we're not using a credit card we're we're just using a you know a bank transfer that we initiate each month we we get the we see the.  
ddd353

00:30:24 Speaker A

OK.

00:30:44 Expert 6

Electronic invoice we say, OK, let's let's pay it on this. Set it up for payment on this.

00:30:49 Expert 6

Date and and that's it.

00:30:50 Expert 6

And it and it happens.

00:30:53 Speaker A

OK.

00:30:55 Speaker A

And then let's move on to the next point.

00:30:59 Expert 6

OK.

00:30:59 Speaker A

Which also is a bit related to different tools that you use in your in your company. In your software company behind the scenes, let's say.

00:31:09 Speaker A

Is the establishment of interconnection between systems and tools that you use as a software company?

00:31:16 Speaker A

This means like integrating various systems with each other in the different APIs such as the customer relationship management tool, the subscription management tool which we talked about, the payment tracking tool which you already talked about.

00:31:29 Speaker A

The database of your company or let's say the database of your application.

00:31:36 Speaker A

And the application itself.

00:31:39 Speaker A

To have like different APIs connect to each other between them, that's also yeah, more in the in the sense of automation, let's say. So what do you what do you, what do you think about?

00:31:52 Speaker A

These these efforts.

00:31:54 Expert 6



III.

00:31:55 Expert 6

Think they're? They're critical today to, you know, to, to help companies become more efficient.

00:32:04 Expert 6

I mean, I I would say that is you know of of the highest priority for a for a variety of reasons. But in order for companies to to operate today more efficiently, they they need to, they need to, you know invest in the the abilities to to have these systems you know.

00:32:10

OK.

00:32:25 Expert 6

Reliably communicate with each other, and because there there is no one software platform out there that does everything so so you know, in order to in order to you know.

00:32:43 Expert 6

I'd love to say, you know, fully eliminate data problems, but even even systems have data problems occasionally, but they're greatly reduced versus human error of trying to copy information.

00:33:02 Expert 6

From one system to another so that you know records can be related. I I think it's absolutely critical you know to to make that investment. And I know that that you know the projects that I work on.

00:33:17 Expert 6

You know, you know, we always do that. I'm actually working on a project right now where there's four different systems that are are kind of, you know, do completely different things. But but you know, data has to flow between those systems. You know, in order for the, for the business to be able to do what it wants to do.

00:33:38 Expert 6

And you know it. It's not the most elegant way that data flows. There's multiple ways to do it. It doesn't have to be APIs. You know, before APIs were popular, there were, you know, files, you know and sometimes files would get literally copied to a.

00:33:57 Expert 6

A floppy disk I I you know, I don't know if you even know what a floppy disk is, but but they they would get copied to a a physical medium and then literally walked over to another place and then then in.

00:34:02 Speaker A

I think I removed the back of mine.

00:34:11 Expert 6

You know, read in. But you know nowadays, you know they can be copied to an FTP site, you know, put on to an FTP site and then pulled from that same FTP site. So one system can place the file there and the other system can retrieve it and ingest it. That's one way to do it when API's are not available.

00:34:33 Expert 6

However, however, it has to happen, I think it's it's critical again for in order for companies to to work smoothly and to to.

00:34:46 Expert 6

You know, reduce the friction and and shorten the time. That's what companies need to do and you know, one of the things that I often tell people is that it, you know, companies are competing not only with other companies that offer.

00:35:07 Expert 6

Similar services, but they're they're actually competing from a from a customer mind, share perspective, they're competing with companies that that are in totally different businesses just because of the experiences that people have as customers.

00:35:26 Expert 6

You know, you know, if I go to my, if I go to my bank and I can do all these things online and then I go to, you know, the the utility company to pay my, you know, because I want to pay my electric bill and I have to mail in my payment there.

00:35:44 Expert 6

You know my bank and the the the electric company have nothing to do with each other. They they're not direct competitors. But I say, wow, the experience on my my bank is so easy.

00:35:56 Expert 6

And yet, look, it's a.

00:35:57 Expert 6

Pain in the neck to to.

00:35:59 Expert 6

Have to deal with the, you know, the utility company, you know, to to do a similar type of thing. Why is that? And you know, can I, you know, can I switch utility companies or can I go someplace else because they they just don't have, you know, a standard of service.

00:36:16 Expert 6

ddd356

And capabilities that I'm used to, even if it's from other companies, you know in in totally different parts of my life.

00:36:26 Expert 6

So I I think you know anything companies can do to shorten the amount of time it takes to to complete a cycle or a transaction and anything they can do to reduce the friction or or the level of effort that I as a customer.

00:36:47 Expert 6

Have to expend that will be greatly appreciated. So again for example, a common example today is you know you call up your bank.

00:36:57 Expert 6

Where you call and and you you know you you enter in your account information and you hear something you you hear your account balance and then. But if you wanna then talk to a live person, you know you have to reauthenticate yourself. And so I hate that. And and there's no reason to have to do that.

00:37:18 Expert 6

If I go through authentication once, I shouldn't have.

00:37:21 Expert 6

To you know.

00:37:22 Expert 6

Go through it again, or if I provide information once, I shouldn't have to, you know, provide that same exact information on a on a, you know, in another part of an application or another part of a process.

00:37:38 Expert 6

And and again, people today there are, there are companies today that.

00:37:42 Expert 6

Do deliver that kind of experience. So whenever you don't get that it it's kind of a it it kind of works against you or it works against that company to say you know we're not delivering a good experience, there's much better experiences out there.

00:38:02 Expert 6

From a from an effort and from a from a flow perspective.

00:38:08 Expert 6

So that's why I think it's important that you know data get, you know, moved around. I'd much rather make the computers do the work and then the people do the work.

00:38:20 Speaker A

Yeah, I think also since you're involved with like business processes and stuff like that and digital transformation, I think.

00:38:28 Speaker A

It gives some kind of not pleasure, but yeah, maybe a little bit.

00:38:33 Speaker A

To make things like flow with each other and automate processes and stuff which you also find kind of satisfying is probably the right word.

00:38:42 Speaker A

Say that.

00:38:43 Speaker A

So yeah, I completely understand. I understand your point for sure. I have just one question to that. Is it difficult to establish interconnection or is that just dependent on the different tools you want to connect with each other? Mean if it's probably a lot of SAS tools as well that you want to connect with each other, it's maybe easier if you have legacy systems it's.

00:39:05 Speaker A

Maybe a bit, a little bit difficult or what would you say because I don't have a clue on what's what.

00:39:11 Expert 6

Yeah. Yeah. No, it's great. Great question, you know.

00:39:16 Expert 6

Modern systems.

00:39:18 Expert 6

You know, make it much easier to connect. You know, they, they they're built around, you know, smaller services and they're built around kind of, you know an API architecture. But the reality the reality is is particularly large enterprises often.

00:39:37 Expert 6

Have you know several different legacy systems out there? You know, because they work, they, you know, transactionally they are rock solid, they never go down and and.

00:39:55 Expert 6

You know, they don't want to invest the money to replace them when they when they're rock solid. The only thing that they don't have, they don't. The only thing that they don't have is, you know, maybe, you know, maybe they don't have a an API interface maybe maybe they have, you know, a more proprietary interface.

ddd358

00:40:16 Expert 6

Maybe they can only do file transfers so you know sometimes you know they will. You know, a project or a business will say, look, we can't replace this mainframe system.

00:40:30 Expert 6

Here, you know it's it's.

00:40:33 Expert 6

20-30 years old, but we're not.

00:40:35 Expert 6

Going to replace.

00:40:36 Expert 6

It and you know, here's how we have to get data into and out.

00:40:40 Expert 6

Of it.

00:40:41 Expert 6

And and and you know, they they go through the effort to do that and and and again I I'm working on a project right now where.

00:40:52 Expert 6

You know, one of the systems is kind of a is an older system. It's probably, you know, upwards of 20 years old, it cannot support rest API's and and there and and the system that it's integrating with you know the common way to integrate to it is REST API's.

00:41:11 Expert 6

So, but the new system also will support batch files.

00:41:19 Expert 6

So it will support files.

00:41:22 Expert 6

That are they're they're.

00:41:23 Expert 6

JSON structured files and and it will pick them up it, you know, we'll pick them up, you know, from an FTP server. So the old system can generate, you know those files.

00:41:36 Expert 6

You know, and that's.

ddd359

00:41:39 Expert 6

We're doing, you know, until they until they upgrade the older system to to where to a version that supports rest APIs. You know this is.

00:41:49 Expert 6

What we're going to do.

00:41:50 Expert 6

So, you know, I don't know if that fully answered your question, but but the answer the consulting answer is it depends.

00:41:56 Expert 6

On the on the.

00:41:57 Expert 6

System you know, and how many different interfaces there.

00:42:00 Expert 6

I think in a in a in a perfect world today, I mean there there is.

00:42:06 Expert 6

That there are, you know.

00:42:07 Expert 6

API platforms like there's a platform called MULESOFT which.

00:42:11 Expert 6

It's almost like.

00:42:12 Expert 6

A hub and spoke architecture so so it sits in the middle and it just runs API services and then all of these peripheral services that need to, you know, push and pull information.

00:42:26 Expert 6

They just talked to the to this mule soft in the middle and then mulesoft then sends it out to, you know, the the destination and and vice versa. So it it's that. That's just one example of an architecture that there's there's other, you know, there's.

00:42:36

OK.

00:42:42 Expert 6

ddd360

Systems out there. You know that that.

00:42:44 Expert 6

Have been in use.

00:42:45 Expert 6

For a long time, so you know it's.

00:42:49 Expert 6

It's not a homogeneous.

00:42:51 Expert 6

Data environment out there, which means you know any large, any large application in in all likelihood is going to have multiple integration points and they may they very well may be different.

00:43:06 Speaker A

OK, cool. Yeah, that answers my question. Thanks then.

00:43:12 Speaker A

Let's continue to the 6th point, 6th process pattern. So let's assume one customer came on your website where you checked out your packages he decided.

00:43:24 Speaker A

To buy a subscription for his company and UM, so he just created his account, popped in his credit card information and and as soon as the first payment was done for the first month.

00:43:39 Speaker A

He gets access to the application that you're providing.

00:43:43 Speaker A

As a software company, and he's getting greeted with.

00:43:49 Speaker A

A nice onboarding area which.

00:43:52 Speaker A

Yeah, we'll guide him through a step by step self-service process. And let's basically do the onboarding by himself for the customer, for his customer instance that he just purchased.

00:44:06 Speaker A

In order to roll out, yeah, the software for his company.

00:44:13 Speaker A

ddd361

Yes. How do you think about that as introducing that as a feature for your essay software?

00:44:20 Expert 6

You know, I I think.

00:44:22 Expert 6

It it, it obviously depends on. It depends upon kind of what the service is and how big your typical customer. You know user base is. I mean if is this a software package that you know thousands of people are going to be using, you know from the same organization or you know you know.

00:44:42 Expert 6

Just a handful of people. You know, it it so I think that would help, you know, determine, you know, how much effort should be put into on board.

00:44:53 Expert 6

But I mean, generally speaking, I'm in favor of it. Again, I I go back to the go back to what I said before, which is you know.

00:45:04 Expert 6

If I have to do a lot of you know how much work do I have to do to become established with your software? You know there, there's onboarding, which generally it's just, you know, creating credentials in the thing you know. So I guess I would expand upon what you're saying, you know onboarding which is you know.

00:45:24 Expert 6

You know.

00:45:24 Expert 6

Earning you know or or training which I I do think is critical you know particularly you know you're you see it more with the the larger SAS platforms you know like a sales force or an SAP or which is you know they are.

00:45:45 Expert 6

Their applications. But you know, in many ways they're like an operating system in that you can build the business process, they they probably don't have a the business process that your company.

00:45:58 Expert 6

You know uses.

00:46:00 Expert 6

Exactly. They may have, you know, a a sample, but it's probably not doing exactly what you your business wants, which means it needs to be tailored. It needs to be modified. And the good news is, is that all of these packages. ddd362

00:46:18 Expert 6

In addition to helping you run your business, they have extensive tools to kind of build the processes you want.



00:46:27 Expert 6

Along with and, along with building those you know processes out, you know, they also probably have some tools for, you know, creating reports and they have tools for integrating to 3rd party or external applications or external data sources. While all of that, all of that though requires.

00:46:47 Expert 6

You know a level of expertise that you're not going to have on day one and you're probably not going to have on day 100 and.

00:46:54 Expert 6

One and and so how do you how do you as an organization that wants to use this software platform get smart about it? So you you need to be trained. So I I do think you know similar to onboarding you know the the larger packages need to have you know comprehensive training.

00:47:16 Expert 6

Programs and those can be online, you know, and certainly the you know I've benefited from online training you know to learn how to use different software packages.

00:47:27 Speaker A

Like online course with a real person that's teaching you or something like that.

00:47:31 Expert 6

Well, there's on there's online courses, you know, and it can be conducted like this. Then there's kind of, you know, you know, online training where you just learn you, you just follow lessons and you know.

00:47:44 Expert 6

You you kind.

00:47:45 Expert 6

Of follow a recorded lesson and then you know you have a a sample environment to go kind of reinforce.

00:47:51 Expert 6

That and and practice.

00:47:54 Expert 6

Certainly the larger you know bigger SAS packages all have that.

00:48:00 Expert 6

You know to to get trained to and and then you earn, you know, then you become certified on a particular platform.

00:48:07 Expert 6

So I think that's really critical.

00:48:11 Expert 6

You know, a lot of the you.

00:48:14 Expert 6

Certainly the enterprise, even before it was SAS and it was just box software. The enterprise, you know software packages had had training. So being cloud based, didn't you know that's not the only reason why you could have training again.

00:48:34 Expert 6

Cloud makes it so much easier to update your training because you have a single repository versus if you have to distribute it out to to, you know, hundreds or thousands of customers. But even even like you know, I always go back to.

00:48:49 Expert 6

You know Microsoft Office. You know, most people don't know it, you know. But there's a whole embedded development language in all of the office products products that would, you know, allow you to do custom development in those products.

00:49:10 Speaker A

OK.

00:49:12 Expert 6

So you can you can do all sorts of automations in PowerPoint and all sorts of automations in Excel and word. If you want to go learn that stuff and and you know.

00:49:26

Like I said.

00:49:27 Expert 6

There, there's a whole embedded, you know, environment there that you can write your own programs.

00:49:32 Expert 6

To to control word and PowerPoint and Excel and Visio and.

00:49:37 Expert 6

All of the. ddd364

00:49:37 Expert 6

And it's common across all of those different products.

00:49:41

OK.

00:49:42 Speaker A

I didn't even know that.

00:49:44 Expert 6

Yeah, it's it's called. It's called visual basic for applications and it it, it runs underneath, you know, all of the the office products.

00:49:53 Speaker A

OK.

00:49:59 Speaker A

OK. Then let's continue to the next point.

00:50:07 Speaker A

Which would be introducing a.

00:50:11 Expert 6

Self-service.

00:50:13 Expert 6

There's one.

00:50:15 Speaker A

No, we 7 point is introducing a customer admin area in a SAS application.

00:50:24 Speaker A

Which yeah, allows the customer.

00:50:28 Speaker A

Or the admin, which is representative of the customer, let's say managing the software for one organization UM to manage the subscription details, payment options, change that and any contract related or subscription related actions from within the application by themselves.

00:50:49 Expert 6

Yeah. Again, I I think that.

ddd365

00:50:49 Speaker A

You already talked about this a bit, but yeah.

00:50:53 Expert 6

Sure, it in today's, in today's kind of you know certainly at the enterprise level, another really critical piece or component of of any SaaS offering because you have different levels of users. So oftentimes you have you have you know the business user.

00:51:12 Expert 6

You know the the.

00:51:13 Expert 6

Business is buying a software package for to solve particular problems, but you know then there's the IT users who you know are often have to support the business.

00:51:24 Expert 6

And again, all of these larger packages have, you know, this underlying capability to to program and develop custom functionality. You know, that goes way beyond, you know, you know what was what was there on day one reports.

00:51:44 Expert 6

So so having having, you know an administrative user I think is is is very important so that.

00:51:54 Expert 6

If if I.

00:51:55 Expert 6

If I just need to see report.

00:51:57 Expert 6

You know I can't accidentally go in and modify, you know? You know, something critical to the business, you know, so.

00:52:08 Expert 6

You know, that's why if you're going to have different roles of people using the software.

00:52:17 Expert 6

Then you have to have an administrative capability to assign roles, assign you know you know which assigns permissions it it it, it regulates visibility.

00:52:30 Expert 6

So so a manager might be able to see certain things, but of Vice president, you know should be able to see, you know, you know more stuff. So being able to restrict what data it you know becomes available. This is all critical today in enterprise systems and and.

00:52:49 Expert 6

You know no software package, particularly a SAS software package, would would would really survive.

00:52:59 Expert 6

If it, if it's meant for, you know, for the enterprise, you know, so even even something like, you know, Microsoft Office, you know, there are, you know, you know users, you know that that write documents and stuff but there's also administrators of of office that control all of our access and you know which which modules.

00:53:19 Expert 6

You know, we can even see, you know, some people might only have word and Excel and PowerPoint and other people might have, you know, Microsoft Project and Visio and things like that because they need that. And and companies want to be able to control that, you know.

00:53:37 Expert 6

For, you know, because a, you know, they don't want to pay for Visio licenses if people don't need to access Visio or you know for example, so it it's all part of you know controlling cost, it's all part of controlling you know visibility to to sensitive data. You know it depends upon what the system is.

00:53:56 Expert 6

But but all of that is is absolutely critical to to set up, you know, roles and permissions in in these larger systems.

00:54:06 Speaker A

Hmm. And also like you also considered important for like 1 admin for example or admin.

00:54:13 Speaker A

To manage the subscription details like the payment options like change the payment options or.

00:54:20 Expert 6

Well, I some, somebody, some somebody's got.

00:54:21 Speaker A

To any.

00:54:21 Speaker A

Subscription related actions.

00:54:23 Expert 6

To do it.

ddd367

00:54:25 Expert 6

Some somebody would have to do it, whether it's a whether it's an admin or whether it's it's somebody you know, if there's an accounting role, but you know to to manage payments. But you know generally you know an admin, you know somebody that's got administrative capabilities is going to you know provision.

00:54:45 Expert 6

You know, licenses or access or for new people. And you mentioned before you know onboarding.

00:54:52 Expert 6

Well, that's that's.

00:54:53 Expert 6

A very common function you know when, when new, when an employee joins an organization.

00:54:58 Expert 6

You know they're you.

00:54:59 Expert 6

Know that there's a whole onboarding process and and you know you go as a new employee. Your, your, your virtual profile is it's touched by, you know.

00:55:12 Expert 6

Human resources, which which will you know, you know, contact you for, for the benefits that you're you're going to to.

00:55:20 Expert 6

Get and then it will contact you for kind of the technical resources and and kind of the work tools that you're going to get. So so you know that's all important. And again, if you know the software those administrators have to be able to provision you.

00:55:40 Expert 6

As a as a new employee with whatever level of access you're you're deemed to have.

00:55:47 Speaker A

OK. Yeah, makes sense then.

00:55:50 Speaker A

And what would you rate this this point?

00:55:53 Expert 6

I I I I you know. Yeah I I put this up at at at at at six I I I can't see how you could have a a SAS platform without this capability.

ddd368

00:56:05 Speaker A

OK. OK, that's clear then.

00:56:11 Speaker A

OK. Yeah, then next.

00:56:14 Speaker A

Which would be the introduction of a self-service customer service which enables the customer or let's say the admin or administrator.

00:56:27 Speaker A

To make changes independently in the application itself for the usage for the company and doesn't have to.

00:56:38 Speaker A

The software provider to make these changes for them in their instance, their cloud instance for example.

00:56:46 Expert 6

Well, so you know I think of self-service maybe a little bit differently. You know, you know we've we've been talking about administrators being able to to do provisioning for example, you know they're you know by definition there.

00:57:04 Expert 6

That is self-service. If you want to think about it in that they're they're they don't have to go back to the software company and say, hey, can you add, you know, five more people, you know, into this role. So at in, in one sense that is self-service. But I generally think of self-service as something that is you know.

00:57:24 Expert 6

Outside of the organization, so you have a relationship with your bank where, where, where you, you know, deposit your paycheck or or, you know, and have your your checking account, your savings account you want. You know, if you want to.

00:57:39 Expert 6

You know, make a payment or if you want to find out how much money is in your account, you know before self-service. The only way you could do it is you'd have to, you know, walk into a bank, go to a teller and say here's my account number. How much money do I have? And now you can go online.

00:58:01 Expert 6

Or you can go on the.

00:58:02 Expert 6

ddd369

Phone and entering your credentials, your identifying information and you can find out you know how much is in your account that that's self-service it it's I I tend to.

00:58:18 Expert 6

Think of it primarily in.

00:58:19 Expert 6

A B to C relationship but but that's.

00:58:22 Expert 6

It's not exclusive to that. It's also very common.

00:58:24 Expert 6

In B2B.

00:58:27 Expert 6

So and and it's, it's almost the same thing, but B to C I think it it's only because everyone is just very familiar with you. Go on to a website you you buy something from Amazon. You're self-serving right there you are. You know, figuring out you you are you are browsing a catalog of products.

00:58:47 Expert 6

All by yourself, you are making a selection all by yourself. You're building up a cart all by yourself, and then you're paying for it all by yourself. That that is the definition of self-service, rather than having to, you know.

00:59:04 Expert 6

You know, fill out a form and fax it in. In the old days, or talk to someone on the phone and order things. All of that self-service it. It's again, it's not. It's not. It wasn't unique, it it didn't just come about since SAS software that's been around.

00:59:24 Expert 6

There there. There's always been some level of self-service, but clearly.

00:59:30 Expert 6

You know, since we've moved to the cloud since it's so much has moved to the cloud. self-service has become you know even more ubiquitous. I mean I I it's hard to imagine you know life without self-service I think and and also you know I may I may not.

00:59:51 Expert 6

It may not be convenient for me to go to.

00:59:54 Expert 6

You know a store.

ddd370

00:59:56 Expert 6

You know, during the daytime I may work all day long and I may want to do shopping at at 10:00 or 11:00 at night. And the problem is the stores are closed so, but I can go online and and and do all kinds of self-service whether I want to buy things or I want to check my bank balance. The banks certainly aren't open at 10:00.



01:00:17 Expert 6

Tonight I can pay my electric bills, so being able to do things kind of when I.

01:00:25 Expert 6

Want that's the beauty of self-service and and again in today's economy, I think companies they can't survive without it. You know #1 to to keep their customers happy and #2 because without self-service, even if even if they were open all the time.

01:00:47 Expert 6

You know, if I have questions.

01:00:51 Expert 6

You know you can't. People are very expensive to hire. So. So you never know. It's always. They're always chasing. Well, how many? How many customer service representatives should I have available? And you know, all they can do is they can look at historically.

01:01:11 Expert 6

You know, we we had if we have 1000 people calling us between 8:00 and 9:00 in the.

01:01:17 Expert 6

Morning historically, you know, we should have 15. You know we should have 150 customer service reps, but what happens when 2000 people call between not you know on one day for whatever reason and they can't always predict that. So you know self-service helps.

01:01:39 Expert 6

You know people, it helps companies take the, you know.

01:01:48 Expert 6

The harshness out of, you know, not having enough live people to to answer questions, so that's that's huge. And companies have been doing this now for years that they're trying to. So they they're cutting down the number of of live customer service reps as they as their self-service improves.

01:02:09 Expert 6

You know, they they wanna you.

01:02:10 Expert 6

Know lower their costs.

ddd371

01:02:13 Expert 6

And they reduce the number of people and and we still get frustrated as customers when we have to wait 20 minutes. You know if we want to talk to someone on the phone or we're trying to chat with somebody and and we, you know they tell us we're #15 in the chat queue. That's frustrating.

01:02:31 Expert 6

But but so companies are always playing that game to to say, you know how, how many people can we, you know, do we absolutely need to provide a a minimum, you know, an acceptable level of coverage for the majority of time?

01:02:50 Expert 6

So I consider it's super important you know your next question was FAQ's, FAQ's. To me is just self-service that is not specific to me.

01:03:02 Expert 6

Generally speaking, self-service is specific to me because I'm providing some sort of credential to allow me to access information that is mine or about me. So my bank account, my you know, airline reservation, whereas an FAQ.

01:03:23 Expert 6

Is I'm asking a question that the same answer would apply to.

01:03:28 Expert 6

Anyone you know where is you know FAQ's? We tend to think of as static documents, you know, but to me, you know something like a store locator is is like a dynamic FAQ. You know, I say, well, where's your nearest store?

01:03:48 Expert 6

You know, you know.

01:03:50 Expert 6

To to Boston.

01:03:52 Expert 6

And and it's going to, it's going to give the same answer to you as it would to me as it would to 1000. Other people that ask that question. But you know I could just as easily say where's the nearest store, you know, you know to New York City and it's going to give me a slightly different answer. So whereas in you know the traditional.

01:04:12 Expert 6

FAQ it's a static document, but but there's lots of lots of questions that can be answered and and to me.

01:04:22 Expert 6

ddd372

Therefore are self-service.

01:04:26 Expert 6

It's it's not.

01:04:27 Expert 6

As but without the personalized information or it's non it's uncredentialed self-service if you will I I don't need, I don't need to talk to somebody to to to do a store locator. So I'm serving myself. I'm getting the answer to my question.

01:04:45 Expert 6

It's just that you don't need to know who I am. I can be anonymous.

01:04:50 Speaker A

OK.

01:04:52 Speaker A

They're also coming along with the FAQ section. There is one more developments in the chatbot area going on.

01:05:01 Speaker A

So the last process pattern.

01:05:05 Speaker A

Would be the development of our website or in application chatbot for answering questions could also be like AI chatbot just like without human.

01:05:17 Speaker A

Interference on from the software vendor side towards their customer, yeah.

01:05:22 Expert 6

So again, you know I'm a I'm a big fan. I think it's very important. You know, I I also realize and and very important like you know to deliver customers all of these things to be tied to tie back to delivering, you know, improved customer experience.

01:05:42 Expert 6

And I said.

01:05:43 Expert 6

Before that, companies, you know not only compete with their direct competitors, but but they're competing with other companies in DIFF.

01:05:51 Expert 6

ddd373

Vertical markets just by on their customer service and their customer experience. How how easy does a company make it for me to do business with them and you know a chat bot. So today we live in this Omni channel world, so one day.

01:06:12 Expert 6

If I'm in my car, I'm gonna reach out to a company via the phone.

01:06:17 Expert 6

Whereas if I'm at my computer, I'm going to, you know, come in on the web. And if I'm on my mobile device, you know, I can also use the mobile web if I wanna have an interactive conversation, I'm going to want to go to chat.

01:06:33 Expert 6

You know which is generally accessed through the web. I think chat bots just just like just you know today on the phone, you know you're you're getting.

01:06:44 Expert 6

You know, you know, we're slowly making it to the, you know, slowly, you know, progressing where you call up a company and an artificial voice says thank you for calling, you know, IKEA, what can I help you with today? And I can just say whatever I.

01:07:00 Expert 6

Want to say?

01:07:01 Expert 6

And the chatbot you know is the.

01:07:04 Expert 6

The the, the, the the Keyboarded version of that now chat bots, you know, chat bots have the the advantage of, you know, the fancy ones can put an avatar on.

01:07:18 Expert 6

On them and but and and fancy ones can can let me speak instead of typing because because we all can talk a lot faster than we can speak that that then we can type.

01:07:32 Expert 6

So if I can speak my question rather than type my question.

01:07:40 Expert 6

That's the best.

01:07:41 Expert 6

Of all worlds to me, and then, you know, a chat bot ~~what~~.

01:07:45 Expert 6

Or not. There's a visual.

01:07:48 Expert 6

A A visual avatar associated with the chatbot. But if that chat bot can understand what I'm typing or what I'm speaking and then respond back to me, you know that's great, you know.

01:08:05 Expert 6

There they are.

01:08:07 Expert 6

You know, in order to simplify things because you know most chat bots that I've seen.

01:08:12 Expert 6

Still are are.

01:08:14 Expert 6

Keyboard centric you know a chatbot will you know say here are the things you can ask me about and you know say one such and such two such and such three such and such. So I don't have to type in a big expression. I can just. I can just hit that one, two or three to, you know to get you know the seven most common things.

01:08:34 Expert 6

And then it might say, you know, if it's something.

01:08:36 Expert 6

Else you know, type out what you're what you're asking me about. So chat bots use, you know, shortcuts to to reduce the number of keystrokes. But that's only because, you know, people can't easily talk to the chat bot. You know, we'll get to the point where we can, you know.

01:08:58 Expert 6

Have a conversation with the chat bot and it will fully you know, understand my contacts and and what I'm talking about and and then be able to go look up information for me just as if I was having a conversation with a live person.

01:09:14 Expert 6

And so I do think, you know, all of that is part of the evolution. It's very important for companies to deliver on their, you know that that improved customer experience which which again is ease of use or frictionless how, how.

01:09:34 Expert 6

Easy is it for me to get, you know the information I want people, people, contact companies because they have a problem or they have a question or they want to do some sort of they need to change something or buy something. So you know I'm I'm not contact.

01:09:51 Expert 6

I think a company just because I'm bored, I'm contacting company because I want something and and I want. So generally speaking I want to, you know, come in. I want to ask my question as quickly as possible. I want you to understand it. I don't want to have to repeat.

01:10:11 Expert 6

Myself will provide the same information more than once and and and then I'll be on my way.

01:10:19 Expert 6

And I want to do it, you know, 24 hours a day or or whenever it's convenient for me. I don't care about you. I care about me. I I I, I mean, you know, you know, when you're dealing with a company, you know, it's like it. It's convenient for me to do it at 3:00 in the morning. How come you don't have anyone there to?

01:10:37 Expert 6

Answer my questions so.

01:10:38 Speaker A

Yeah, yeah, I understand. Yeah.

01:10:43 Speaker A

OK. Then if you would have to wait 8-9 and ten, which we didn't do yet or which you.

01:10:48 Speaker A

Didn't do yet and what?

01:10:48 Expert 6

I I I give them all. I I give them all sevens. You know, I think they're all part of customer experience. And I I think companies to companies today are finally are very focused on customer experience. And the reason I think the reason is twofold, #1, it's.

01:11:08 Expert 6

It's never been easier.

01:11:12 Expert 6

Tell a company to, you know, \*\*\*\*\* off. You know, to say goodbye. I'm done with you. I moved to a competitor. It. It's really never been easier. I I say. Except for the utility company. Who, who? You know gives you your electricity. You can pretty much, you know, have multiple vendors, you know, for anything.

ddd376

01:11:33 Expert 6

So that's number one. And then #2 is you know the I liked it. I used to say the ants have megaphones, you know, companies use their companies used to kind of say, you know, again large companies dealing with lots of customers they basically.

01:11:50 Expert 6

Scream your you know you could scream your head off. Who? Nobody's going to listen to you, but now people can go. You know, people get on the Internet and even even the little ants now have megaphones, and they can. They can. If a company is delivering a bad experience, you know, thousands if not millions of people.

01:12:11 Expert 6

Can become aware of that in a pretty short time. So I think companies are very sensitive to bad publicity.

01:12:21

UM.

01:12:24 Expert 6

So that's why I think companies are very, you know, much more focused now on the the experience that you give you, give your customers and and you know as customers we're we're all customers of of many different companies. And I think you know you know we benefit from it there you know.

01:12:43 Expert 6

As a result.

01:12:46 Speaker A

OK.

01:12:48 Speaker A

Well, that was already some great insight for now, for the 10 process parents, I would still have some additional questions to end to round this nice interview up.

01:12:59

OK.

01:13:00 Speaker A

So, are there any essential process patterns that I am or that were not presented right now in these tenants that were listed excluding the pattern of transitioning the software from?

01:13:12 Speaker A

On premise or box software towards the cloud and making sure of the data security of the software in the cloud, the application in the cloud. So anything besides that was something that's still really important for this kind of business transformation. I'm not mentioned so far, which you would still have.

01:13:31 Expert 6

Yeah, you know, I I think 1 Area, 1 area that you probably didn't touch on is I guess what I would call.

01:13:47 Expert 6

Processes or processes that require some level of some.

01:13:55 Expert 6

Amount of human interaction.

01:13:59 Expert 6

And therefore cannot be completed in one session.

01:14:08 Expert 6

You know you, you want you go to your bank and you want to transfer money from one account to another. You you sit down at the computer, you know you can. You can talk to somebody on the phone and do that or you can sit down at the computer and and.

01:14:23 Expert 6

Pick one account, pick another account and and you know do that transaction all in one session and it should take you 5 minutes and and you're done. On the other hand, if you wanted to apply for.

01:14:37 Expert 6

A car loan.

01:14:39 Expert 6

You know you have to fill out that form. Somebody might have to run a credit check on you. Somebody might have to go review, you know, look at some of your financial background to make a decision, you know, should we loan this guy \$10,000 or or should you know, should we, are we comfortable?

01:14:59 Expert 6

Running in \$50,000.

01:15:01 Expert 6

Or maybe nothing.

01:15:03 Expert 6

And make decisions so you can't get an answer, you know.

01:15:09 Expert 6

To your question right away, and therefore you have to come back for another session and and maybe another session depending upon what it is. So discontinuous processes I think present some interesting problems. You know from an.

01:15:29 Expert 6

Automation perspective, you know, they they can certainly be, you know, partially automated, but can't you?



01:15:37 Expert 6

What's preventing them from being fully automated? And again, it doesn't mean that they're fully automated 100% of the time, but could. Could they be fully automated? You know, 90% of the time we can fully automate, you know, a process that, that, that, you know.

01:15:57 Expert 6

And then 10% of the time, you know, we.

01:16:00 Expert 6

Have to go through and approve, let's call it.

01:16:03 Expert 6

An approval step or two approval step.

01:16:06 Expert 6

So so the transaction has to bounce from, you know, person A to person B to person C you know, back to the the person who requested it or.

01:16:16 Expert 6

Or initiated it.

01:16:19 Expert 6

Those I think.

01:16:19 Expert 6

Are are kind of interesting, you know problems and and you know presents some unique challenges you know to to help drive those transactions forward.

01:16:31 Expert 6

Because it it it, it introduced if they can be fully automated, great. But if they can't be, you know, and and if if you have these you.

01:16:39 Expert 6

Know chunks of.

01:16:40 Expert 6

Time that have to elapse. You know you know how much time should I give an approver. You know once I send something out for approval how much time should I give that?

01:16:51 Expert 6

Person to actually approve it.

01:16:53 Expert 6

And move the work forward.

01:16:56 Expert 6

To the next step, and which may be completion, or it may be you know onto a second approval and what happens if that time you know lapses. So I give you a day to respond. What happens if nothing happens in a day? You know? Do I do I send you a reminder?

01:17:17 Expert 6

Do I you know, route it to somebody else. So those present, you know, a level of complexity that I think you know.

01:17:29 Expert 6

You know, companies are are striving to solve those types of, you know, process automation problems too and and you know and again it's it's not a it's not an all or nothing thing. So these processes evolve over time you know as new technologies.

01:17:49 Expert 6

Come. Oh, you know, you know, come to come to bear. You know, years ago, you know, so an example here might be if if you're applying for a loan, you know, years ago.

01:18:04 Expert 6

You know you didn't you you didn't apply online for that loan. You went into a bank and you filled out a paper form and then, you know, they they would tell you Christian. OK, you know, somebody will get back to you in a in a in a couple of days or in a week. And maybe they called you on the phone, maybe something showed up in your in your mail.

01:18:25 Expert 6

And you know it.

01:18:26 Expert 6

Says. You know, maybe it says congratulations, we're going to loan you this money or maybe it says we need some additional information from you. You know, we need to see your bank statements or something like that. So now you have to mail them in or bring them in and and the process gets delayed and delayed where whereas now you know, even though you might need.

01:18:46 Expert 6

Approvals where somebody has to review it, you know they can look at it online that you know, so they may get to it.

ddd380

01:18:53 Expert 6

You know, you know, inside of 24 hours, then they send you an e-mail that says, hey, you know, we're we're processing your loan. We need to see your bank statements, upload it, upload, you know,

two months of your bank statement here. So again, we haven't limited we we haven't fully automated the process.

01:19:13 Expert 6

But we're certainly, you know, you know, because of the technology, we're able to compress the time, you know, between these steps. And again, this this is that that idea, you know, towards making these processes, you know, more frictionless.

01:19:30 Expert 6

So those are those are, you know very, you know those are I think really interesting problems to try to solve. You know it used to be, you know oftentimes you'd have to give a you know a hard signature on a document. So they mail it to you, you'd sign it, you'd mail it back or or then they could fax it to you.

01:19:49 Expert 6

But you had to, you know, print, you know, sign it and then mail it back. You know, now they send you a PDF and you can electronically sign it. So again, same basic idea, but we're compressing the time, you know, needed to kind of get through all these stages.

01:20:06 Speaker A

OK. Yeah, cool. Thanks for that. I didn't think about that yet, but I will definitely have a look for that.

01:20:13 Speaker A

For some additional additional findings for sure. Then my last question then we're already done.

01:20:16 Expert 6

OK.

01:20:23 Speaker A

Yeah. So.

01:20:24 Speaker A

For the end, feel free to share any additional insights, best practices, or trends that you have observed in the industry related to software service and or software as a service transformations. So you are a verdict on, yeah.

01:20:41 Speaker A

Let's say developments for the future or trends, stuff like that.

01:20:42 Expert 6

ddd381

Well, I yeah.

01:20:46 Expert 6

You know, I think it's an evolutionary change and not a revolutionary change. So, so it, you know, change doesn't come as fast as you know some people might like and it's because that, you know, we're talking about this before.

01:21:06 Expert 6

You know, oftentimes you know what I found you know, particularly in large organizations what?

01:21:11 Expert 6

You find is.

01:21:12 Expert 6

There's many different systems at play that have to figure out how to work together so so in order you know.

01:21:21 Expert 6

Companies can't just wholesale, you know, replace everything at once. So, you know, sometimes, you know, change, you know, it does, you know, change is incremental. And you know these same processes, you know, so for, you know, you know, we're talking about applying for a loan.

01:21:42 Expert 6

You know the process. The process is still largely the same. You you come in, you you fill out an application, just the the means to do it, you know, keep changing, you know piece that it change over time. And I think that's going to be the case. You know, AI is going to become.

01:22:02 Expert 6

You know more and more a critical factor, you know, particularly on decision making. You know when there's, you know rules or you know business rules and decisions that have to be made. AI is going to, you know, bring that up a level.

01:22:17 Expert 6

You know to.

01:22:19 Expert 6

To help facilitate that, which means, you know, a higher percentage of the processes will be able to be, you know.

01:22:29 Expert 6

More completely, if not fully automated, time will will compress down.

01:22:36 Expert 6

And and you know these things are are, you know, going to to, I think eventually be.

01:22:44 Expert 6

I I don't know whether it's good or.

01:22:46 Expert 6

Bad, but eventually you know you're going to. You know, we're all going to be talking to.

01:22:50 Expert 6

You know, you know.

01:22:51 Expert 6

Artificial intelligence bots to to pretty much, you know, help us manage our lives. That's what. That's where I think we're going with, with process automation. I don't, I don't know what people.

01:23:03 Expert 6

Are going to be doing.

01:23:05 Expert 6

50 years from now, but you know it will be interesting so.

01:23:10 Speaker A

Yeah, I'm from Germany and UM.

01:23:15 Speaker A

They've been already trying since a few years. I don't know what it's called in English.

01:23:21 Speaker A

To give.

01:23:22 Speaker A

Every citizen of Germany.

01:23:27 Speaker A

The same amount of money every month, I think €2000 or something. They're trying it with like a little group of people.

01:23:34 Speaker A

And so you're already thinking ahead of what it could be like in, I don't know how many years when everything's automated basically and nobody has anything to do anymore.

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01:23:47 Speaker A

And so they've been trying that so.

01:23:48 Expert 6

I I know.

01:23:49 Expert 6

Some where where's somebody's got to, you know.

01:23:52 Expert 6

Some just got to have to do the work or do do.

01:23:55 Expert 6

Work. It's going to be.

01:23:57 Expert 6

Interesting. Yeah, see what happens.

01:23:59

Yeah, for sure.

01:24:00 Speaker A

For sure also a bit scary because.

01:24:03 Speaker A

I mean, I just. I'm gonna. I'm about to graduate my my masters.

01:24:09 Speaker A

I'm focusing on like business transfer, business, process management and stuff like that, which I thought also would be like.

01:24:17 Speaker A

Yeah, pretty, pretty much a lot of things to do in the next years to do that.

01:24:21 Speaker A

But yeah, I think also that is inevitable that probably an AI will be better than me and.

01:24:28 Speaker A

Optimizing a process for a company or doing that automatically, so yeah already already.

01:24:36 Speaker A

Feeling already feeling the.

01:24:37 Speaker A

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Pressure, even though I just I'm about to graduate to.

01:24:42 Speaker A

Set my skill sets apart in order to still be needed in the future. I don't know.

01:24:48 Speaker A

It's a, it's.

01:24:49 Speaker A

A little bit confusing times for sure but.

01:24:52 Speaker A

Yeah, that's what it is.

01:24:54 Expert 6

I I have.

01:24:56 Expert 6

I have faith that that people will figure it out.

01:25:00 Expert 6

We don't have to know all the.

01:25:01 Expert 6

Answers now.

01:25:02 Speaker A

True, who? Who even knows that it? Who even knows if it will be that influential if something happens that.

01:25:10 Speaker A

It's going to get shut down or whatever. Who?

01:25:12 Speaker A

Knows. Yeah. But OK, that's for the future. For now, I am going to say thank you very, very much. That was really, really insightful. I have to say, I think so far I'm going to stop the recording.

## References

- [1] Wieringa, R.J.: Design Science Methodology for Information Systems and Software Engineering. Springer, ??? (2014)
- [2] Dumas, M., La Rosa, M., Mendling, J., Reijers, H.A., *et al.*: Fundamentals of Business Process Management vol. 2. Springer, ??? (2018)
- [3] Nylén, D., Holmström, J.: Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation. *Business horizons* **58**(1), 57–67 (2015)
- [4] Uhl, A., Gollenia, L.A. (eds.): A Handbook of Business Transformation Management Methodology. Routledge, London, UK (2012)
- [5] Ju, J., Wang, Y., Fu, J., Wu, J., Lin, Z.: Research on key technology in saas. In: 2010 International Conference on Intelligent Computing and Cognitive Informatics, pp. 384–387 (2010). IEEE
- [6] Mell, P., Grance, T., *et al.*: The nist definition of cloud computing (2011)
- [7] Heredia, A., Colomo-Palacios, R., Amescua, A.: Software business models from a distribution perspective: A systematic mapping study. *Procedia Computer Science* **64**, 395–402 (2015) <https://doi.org/10.1016/j.procs.2015.08.516>
- [8] Mohajer, S.: Data-Driven SaaS: Powering Growth Through Statistics. Blue Tree. Accessed: 2023-11-19 (2023). <https://bluetree.ai/saas-statistics/>
- [9] Walraven, S.: Middleware and methods for customizable saas (middleware en methodes voor aanpasbare saas) (2014)
- [10] Business Transformation — Definition and Overview. ProductPlan. Accessed: 2023-11-19 (2023)
- [11] Perspectives on Transformation. McKinsey Company. Accessed: 2023-11-19 (2023)
- [12] Desk Sharing Software für hybride Teams. Flexopus. Accessed: 2023-11-19 (2023)
- [13] Siegeris, J., Grasl, O.: Model driven business transformation—an experience report. In: International Conference on Business Process Management, pp. 36–50 (2008). Springer
- [14] Diebold, P., Scherr, S.A.: Software process models vs. descriptions: what do practitioners use and need? In: Proceedings of the International Conference on Software and Systems Process, pp. 66–75 (2016)



- [15] Markovic, I.: Semantic business process modeling. (2011)
- [16] Lodhi, A., Kassem, G., Rautenstrauch, C.: Modeling and analysis of business processes using business objects. In: 2009 2nd International Conference on Computer, Control and Communication, pp. 1–6 (2009). <https://doi.org/10.1109/IC4.2009.4909176>
- [17] Polyvyanyy, A.: Structuring process models. PhD thesis, University of Potsdam (2012)
- [18] Yu, E.: Modeling strategic relationships for process reengineering. *Social Modeling for Requirements Engineering* **11**(2011), 66–87 (2011)
- [19] Yrjönkoski, T.: How to support transformation from on-premise products to saas? In: International Workshop on Software-intensive Business: Start-ups, Ecosystems and Platforms (SiBW 2018), p. 144 (2018)
- [20] Aldin, L., Cesare, S.: A literature review on business process modelling: new frontiers of reusability. *Enterprise Information Systems* **5**(3), 359–383 (2011)
- [21] Duan, C., Cleland-Huang, J.: A clustering technique for early detection of dominant and recessive cross-cutting concerns. In: Early Aspects at ICSE: Workshops in Aspect-Oriented Requirements Engineering and Architecture Design (EARLYASPECTS'07), pp. 1–1 (2007). <https://doi.org/10.1109/EARLYASPECTS.2007.1>
- [22] Mulder, F., Zaidman, A.: Identifying cross-cutting concerns using software repository mining. In: Proceedings of the Joint ERCIM Workshop on Software Evolution (EVOL) and International Workshop on Principles of Software Evolution (IWPSE), pp. 23–32 (2010)
- [23] Aguilar-Savén, R.S.: Business process modelling: Review and framework. *International Journal of production economics* **90**(2), 129–149 (2004)
- [24] Kitchenham, B., Brereton, O.P., Budgen, D., Turner, M., Bailey, J., Linkman, S.: Systematic literature reviews in software engineering—a systematic literature review. *Information and software technology* **51**(1), 7–15 (2009)
- [25] Sauer, P.C., Seuring, S.: How to conduct systematic literature reviews in management research: a guide in 6 steps and 14 decisions. *Review of Managerial Science*, 1–35 (2023)
- [26] Kallio, H., Pietilä, A.-M., Johnson, M., Kangasniemi, M.: Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of advanced nursing* **72**(12), 2954–2965 (2016)

- [27] Uhl, A., Pimmer, C.: Transdisciplinary knowledge for business transformation: The diverse potential of a global network of experts. *360° - the Business Transformation Journal* **1**, 21–29 (2011)
- [28] Jick, T.: Implementing change. *Managing Change*, Irwin, Homewood, IL, 192–201 (1993)
- [29] Kotter, J.P.: Leading change: Why transformation efforts fail. In: *Museum Management and Marketing*, pp. 20–29. Routledge, ??? (2007)
- [30] Garvin, D.A.: *Learning in Action: A Guide to Putting the Learning Organization to Work*. Harvard Business Review Press, ??? (2003)
- [31] By, R.T.: Organisational change management: A critical review. *Journal of change management* **5**(4), 369–380 (2005)
- [32] Venkatraman, N.: It-enabled business transformation: from automation to business scope redefinition. *Sloan management review* **35**, 73–73 (1994)
- [33] Mento, A., Jones, R., Dirndorfer, W.: A change management process: Grounded in both theory and practice. *Journal of change management* **3**(1), 45–59 (2002)
- [34] Li, X., Voorneveld, M., de Koster, R.: Business transformation in an age of turbulence – lessons learned from covid-19. *Technological Forecasting and Social Change* **176**, 121452 (2022) <https://doi.org/10.1016/j.techfore.2021.121452>
- [35] Vial, G.: Understanding digital transformation: A review and a research agenda. *The journal of strategic information systems* **28**(2), 118–144 (2019)
- [36] Reis, J., Amorim, M., Melão, N., Matos, P.: Digital transformation: A literature review and guidelines for future research. In: Rocha, Á., Adeli, H., Reis, L.P., Costanzo, S. (eds.) *Trends and Advances in Information Systems and Technologies*, pp. 411–421. Springer, Cham (2018)
- [37] Henriette, E., Feki, M., Boughzala, I.: The shape of digital transformation: A systematic literature review. In: *MCIS 2015 Proceedings* (2015). <https://aisel.aisnet.org/mcis2015/10>
- [38] Dvořák, R.P.G.V.M.F.M. M.: Economic impacts of covid-19 on the labor market and human capital. *Terra Econ.* **18**, 78–96 (2020) <https://doi.org/10.18522/2073-6606-2020-18-4-78-96>
- [39] Han, W.X. Y.: Digitization of text documents using pdf/a. *ITAL* **37**, 52–64 (2018) <https://doi.org/10.6017/ital.v37i1.9878>
- [40] Wahyuningtyas, D.G.M.R.R. R.: Digital innovation and capability to create competitiveness model of cooperatives in bandung, indonesia. *jmi* **21**, 171 (2021) <https://doi.org/10.25124/jmi.v21i2.3633>

- [41] Njah, C.M. Y.: Parallel route optimization and service assurance in energy-efficient software-defined industrial iot networks. *IEEE Access* **9**, 24682–24696 (2021) <https://doi.org/10.1109/access.2021.3056931>
- [42] Ferreira, N.J.V.B.H.M.C.d.S. S. L. N. G.: Critical success factors on project and process management in competitive strategy implementation. *BJO&PM* **16**, 605–616 (2019) <https://doi.org/10.14488/bjopm.2019.v16.n4.a6>
- [43] Yu, M.T. J.: Impact of digital strategic orientation on organizational performance through digital competence. *Sustainability* **13**, 9766 (2021) <https://doi.org/10.3390/su13179766>
- [44] Tabrizi, B., Lam, E., Girard, K., Irvin, V.: Digital transformation is not about technology. *Harvard business review* **13**(March), 1–6 (2019)
- [45] Trad, A., Kalpi, D.: The selection and training framework (stf) for managers in in (e-) business innovation transformation projects-the literature review. *Procedia Technology* **9**, 411–420 (2013)
- [46] Reijers, H.A.: Implementing bpm systems: the role of process orientation. *Business process management journal* **12**(4), 389–409 (2006)
- [47] Božić, S.R.S.R.K. D.: Possibility of applying business process management methodology in logistic processes optimization. *PROMET* **26**, 507–516 (2014) <https://doi.org/10.7307/ptt.v26i6.1610>
- [48] Intrigila, D.A.D.A. B.: A lightweight bpmn extension for business process-oriented requirements engineering. *Computers* **10**, 171 (2021) <https://doi.org/10.3390/computers10120171>
- [49] Lindsay, A., Downs, D., Lunn, K.: Business processes—attempts to find a definition. *Information and software technology* **45**(15), 1015–1019 (2003)
- [50] Daft, R.L.: *Management*. Cengage Learning, ??? (2021)
- [51] Czvetkó, T., Kummer, A., Ruppert, T., Abonyi, J.: Data-driven business process management-based development of industry 4.0 solutions. *CIRP journal of manufacturing science and technology* **36**, 117–132 (2022)
- [52] Garbutt, R.A.S.L.F. M.: Toward a business process owner competency framework. *SACJ* **29** (2017) <https://doi.org/10.18489/sacj.v29i1.454>
- [53] Rafael\*, R.L.E.V.G.B.C.V.P. F. V.: Business process reengineering in a volatility, uncertainty, complexity, ambiguity, and disruptive (vucad) landscape. *IJRTE* **8**, 5376–5381 (2020) <https://doi.org/10.35940/ijrte.e4561.018520>
- [54] Hammer, M.: Reengineering work: Don't automate, obliterate. *Harvard business review* **68**(4), 104–112 (1990)

- [55] Hammer, M., Champy, J.: Reengineering the Corporation: Manifesto for Business Revolution, A. Zondervan, ??? (2009)
- [56] Delić, A.S.M.M. A.: The role of the process organizational structure in the development of intrapreneurship in large companies. *Naše gospodarstvo/Our Economy* **62**, 42–51 (2016) <https://doi.org/10.1515/ngoe-2016-0023>
- [57] Wang, M.X.Z.G.L.D.X.L. S.: Observation of the effect of nursing bpr on thrombolytic efficacy and prognosis of patients with cerebral infarction based on ct images. *Contrast Media amp; Molecular Imaging* **2022**, 1–12 (2022) <https://doi.org/10.1155/2022/3106904>
- [58] Hrabal, T.D. M.: What does it mean to own a process: Defining process owner’s competencies. *FME Transaction* **46**, 138–150 (2018) <https://doi.org/10.5937/fmet1801138h>
- [59] Hirschheim, R., Klein, H.K.: A glorious and not-so-short history of the information systems field. *Journal of the association for information systems* **13**(4), 5 (2012)
- [60] Wang, L.J. Z.: The realization path of teaching management process reengineering in the chinese universities. *TECS* **6**, 12 (2021) <https://doi.org/10.11648/j.tecs.20210601.13>
- [61] Aalst, W.M.: Business process management: a comprehensive survey. *International Scholarly Research Notices* **2013** (2013)
- [62] Sosa-Sánchez, C.P.J.P.A.E.O.-C.C. E.: Aligning business processes with the services layer using a semantic approach. *IEEE Access* **7**, 2904–2927 (2019) <https://doi.org/10.1109/access.2018.2886639>
- [63] Glavan, L.M.: Understanding process performance measurement systems. *Business Systems Research* **2**, 25–38 (2011) <https://doi.org/10.2478/v10305-012-0014-0>
- [64] Ivanišević, R., Horvat, D., Matić, M.: Business process redesign as a basic aspect of digital business transformation. *Strategic Management* (2023)
- [65] Cruz, L., Basto, M., Silva, J., Lopes, N.: Business process management as a driver for digital transformation: A case study in a higher education institution. In: 2021 16th Iberian Conference on Information Systems and Technologies (CISTI), pp. 1–6 (2021). IEEE
- [66] Perumal, S., Pandey, N.: Process-based business transformation through services computing. *International Journal of Industrial and Systems Engineering* **2**, 1237–1241 (2008)

- [67] Kechagias, G.S.P.K.G.D.P.G.Z. E. P.: An application of a multi-criteria approach for the development of a process reference model for supply chain operations. *Sustainability* **12**, 5791 (2020) <https://doi.org/10.3390/su12145791>
- [68] Myslín, K.J. J.: State modeling methodology for business processes. *TEM Journal*, 1824–1834 (2022) <https://doi.org/10.18421/tem114-50>
- [69] Kolpakov, A.I.R.S.R. F. A.: Biouml—towards a universal research platform. *Nucleic Acids Research* **50**, 124–131 (2022) <https://doi.org/10.1093/nar/gkac286>
- [70] Rocha, C.C.R.C.M.d.O.A.R.R.d.J.I.H.d.F.M.S.R.d.L.P.R. R. B.: Collaboration models in distributed software development: a systematic review. *CLEIej* **14** (2011) <https://doi.org/10.19153/cleiej.14.2.1>
- [71] Merzlyakova, E.I.B.E. E.: Main trends in the development of the global e-commerce market. *SHS Web Conf.* **110**, 01035 (2021) <https://doi.org/10.1051/shsconf/202111001035>
- [72] Simone, S.E. A.: The new paradigm of the omnichannel retailing: Key drivers, new challenges and potential outcomes resulting from the adoption of an omnichannel approach. *IJBM* **13**, 85 (2017) <https://doi.org/10.5539/ijbm.v13n1p85>
- [73] Freitas, N.M.M.F. A. L. P.: Assessing the service quality in software-as-a-service from the customers' perspective: A methodological approach and case of use. *Prod.* **27** (2017) <https://doi.org/10.1590/0103-6513.20170020>
- [74] Link, B.A. B.: Classifying systemic differences between software as a service- and on-premise-enterprise resource planning. *Journal of Enterprise Information Management* **28**, 808–837 (2015) <https://doi.org/10.1108/jeim-07-2014-0069>
- [75] Mangiuc, D.M.: Software: From product to service the evolution of a model. *Annales Universitatis Apulensis: Series Oeconomica* **11**(1), 88 (2009)
- [76] Wu, P.A. W.: E-learning based on cloud computing. *Int. J. Emerg. Technol. Learn.* **16**, 4 (2021) <https://doi.org/10.3991/ijet.v16i10.18579>
- [77] Chun, S.: Cloud services and pricing strategies for sustainable business models: Analytical and numerical approaches. *Sustainability* **12**, 49 (2019) <https://doi.org/10.3390/su12010049>
- [78] Chen, T.G. H.: A q-learning-based network content caching method. *J Wireless Com Network* **2018** (2018) <https://doi.org/10.1186/s13638-018-1268-1>
- [79] Bolozdiņa, P.-D.R.R.A. D.: Cloud strategy development for medium and small business. *ITMS* **23**, 45–54 (2020) <https://doi.org/10.7250/itms-2020-0007>

- [80] Soni, P.R.J.A. A.: A cloud security attack detection using proposed bgru and bi-lstm models. *IJRASET*, 815–823 (2022) <https://doi.org/10.22214/ijraset.2022.46739>
- [81] Dillon, T., Wu, C., Chang, E.: Cloud computing: issues and challenges. In: 2010 24th IEEE International Conference on Advanced Information Networking and Applications, pp. 27–33 (2010). Ieee
- [82] Gutarra, C., Lancksweert, C., Ghekiere, C.: Transforming to a saas business model: Development of a product packaging and pricing strategy (2022)
- [83] Ahmad, R.A.J.A.R.B.T.J.Z. W.: Cyber security in iot-based cloud computing: a comprehensive survey. *Electronics* **11**, 16 (2021) <https://doi.org/10.3390/electronics11010016>
- [84] Vasista, T.: Strategic business challenges in cloud systems. *Int. J. Cloud Comput. Serv. Archit.* **5**(4), 1–3 (2015)
- [85] Dimitri, N.: Pricing cloud iaas computing services. *J Cloud Comp* **9** (2020) <https://doi.org/10.1186/s13677-020-00161-2>
- [86] Ivančić, L., Stjepic, A.-M., Suša Vugec, D.: Mastering digital transformation through business process management: Investigating alignments, goals, orchestration and roles. *Journal of Entrepreneurship, Management and Innovation* **16**, 41–73 (2020) <https://doi.org/10.7341/20201612>
- [87] Baiyere, A., Salmela, H., Tapanainen, T.: Digital transformation and the new logics of business process management. *European journal of information systems* **29**(3), 238–259 (2020)
- [88] Butt, J.: A conceptual framework to support digital transformation in manufacturing using an integrated business process management approach. *Designs* **4**(3), 17 (2020)
- [89] Duipmans, E.F., Ferreira Pires, L., Silva Santos, L.O.: A transformation-based approach to business process management in the cloud. *Journal of grid computing* **12**, 191–219 (2014)
- [90] Fischer, M., Imgrund, F., Janiesch, C., Winkelmann, A.: Strategy archetypes for digital transformation: Defining meta objectives using business process management. *Information & Management* **57**(5), 103262 (2020)
- [91] Lederer, M., Knapp, J., Schott, P.: The digital future has many names—how business process management drives the digital transformation. In: 2017 6th International Conference on Industrial Technology and Management (ICITM), pp. 22–26 (2017). IEEE

- [92] Paschek, D., Luminosu, C.T., Draghici, A.: Automated business process management—in times of digital transformation using machine learning or artificial intelligence. In: MATEC Web of Conferences, vol. 121, p. 04007 (2017). EDP Sciences
- [93] Sanz, J.L.: Enabling front-office transformation and customer experience through business process engineering. Enterprise Modelling and Information Systems Architectures (EMISAJ) **9**(1), 50–69 (2014)
- [94] Wang, Q., Ren, C., Shao, B., Dong, J., Ding, H., Wang, W.: Supply chain transformation based on business process management. In: 2009 IEEE/INFORMS International Conference on Service Operations, Logistics and Informatics, pp. 518–523 (2009). IEEE
- [95] Pihir, I.: Business process management and digital transformation. Economic and Social Development: Book of Proceedings, 353–360 (2019)
- [96] Van Looy, A.: A quantitative and qualitative study of the link between business process management and digital innovation. Information & Management **58**(2), 103413 (2021)
- [97] Baldwin, L.: Internal and external validity and threats to validity. In: Research Concepts for the Practitioner of Educational Leadership, pp. 31–36. Brill, ??? (2018)
- [98] Kranz, J.J., Hanelt, A., Kolbe, L.M.: Understanding the influence of absorptive capacity and ambidexterity on the process of business model change—the case of on-premise and cloud-computing software. Information systems journal **26**(5), 477–517 (2016)
- [99] He, H.: Applications deployment on the saas platform. In: 5th International Conference on Pervasive Computing and Applications, pp. 232–237 (2010). IEEE
- [100] Dsouza, A., Kabbedijk, J., Seo, D., Jansen, S., Brinkkemper, S.: Software-as-a-service: implications for business and technology in product software companies. In: PACIS 2012 Proceedings Pacific Asia Conference on Information (2012)
- [101] Momm, C., Krebs, R.: A qualitative discussion of different approaches for implementing multi-tenant saas offerings1. Software Engineering 2011—Workshopband (2011)
- [102] Liao, H.: Saas business model for software enterprise. In: 2010 2nd IEEE International Conference on Information Management and Engineering, pp. 604–607 (2010). IEEE
- [103] Luoma, E., Rönkkö, M., Tyrväinen, P.: Current software-as-a-service business

- models: Evidence from finland. In: *Software Business: Third International Conference, ICSOB 2012*, Cambridge, MA, USA, June 18-20, 2012. Proceedings 3, pp. 181–194 (2012). Springer
- [104] Kaltenecker, N., Hess, T., Huesig, S.: Managing potentially disruptive innovations in software companies: Transforming from on-premises to the on-demand. *The Journal of Strategic Information Systems* **24**(4), 234–250 (2015)
- [105] Resceanu, I.C., Reşceanu, C.F., Simionescu, S.M.: SaaS solutions for small-medium businesses: Developer’s perspective on creating new SaaS products. In: *2014 18th International Conference on System Theory, Control and Computing (ICSTCC)*, pp. 140–144 (2014). IEEE
- [106] Saltan, A., Seffah, A.: Engineering and business aspects of SaaS model adoption: Insights from a mapping study. In: *SiBW*, pp. 115–127 (2018)
- [107] Kaltenecker, N.: *Managing disruptive change: Successful transformation from on-premises to SaaS in B2C software companies* (2015)
- [108] Kaltenecker, N., Hess, T.: *From on-premises to on-demand: Learning from two cases of transformation of software companies* (2014)
- [109] Aleem, S., Batool, R., Ahmed, F., Khattak, A.: Guidelines for key organizational factors for SaaS organizations. In: *Proceedings of the 3rd International Conference on Big Data Research*, pp. 83–87 (2019)
- [110] Luoma, E.: Examining business models of software-as-a-service firms. In: *Economics of Grids, Clouds, Systems, and Services: 10th International Conference, GECON 2013*, Zaragoza, Spain, September 18-20, 2013. Proceedings 10, pp. 1–15 (2013). Springer
- [111] Cusumano, M.: Cloud computing and SaaS as new computing platforms. *Communications of the ACM* **53**(4), 27–29 (2010)
- [112] Luoma, E., Laatikainen, G., Mazhelis, O.: Exploring business model changes in software-as-a-service firms. In: *Software Business: 9th International Conference, ICSOB 2018*, Tallinn, Estonia, June 11–12, 2018, Proceedings 9, pp. 108–124 (2018). Springer
- [113] Tyrväinen, P., Selin, J.: How to sell SaaS: a model for main factors of marketing and selling software-as-a-service. In: *Software Business: Second International Conference, ICSOB 2011*, Brussels, Belgium, June 8-10, 2011. Proceedings 2, pp. 2–16 (2011). Springer
- [114] Rantamäki, P., et al.: *Enterprise resource planning (ERP) software-as-a-service (SaaS) sales process, its characteristics and KPIs* (2017)



- [115] Eriksson, J.: Building the sales process: Case: Intunex ltd. (2013)
- [116] Batumani, C.N.: Improving service quality through customer onboarding in a saas company (2023)
- [117] Sandström, L.: Improving customer onboarding in a b2b saas company (2022)
- [118] Frisk, E.: Exploring customer on-boarding in saas startups (2014)
- [119] Benlian, A., Koufaris, M., Hess, T.: The role of saas service quality for continued saas use: Empirical insights from saas using firms (2010)
- [120] Koski, A., Kuusinen, K., Suonsyrjä, S., Mikkonen, T.: Implementing continuous customer care: First-hand experiences from an industrial setting. In: 2016 42th Euromicro Conference on Software Engineering and Advanced Applications (SEAA), pp. 78–85 (2016). IEEE
- [121] D’silva, G.M., Thakare, S., More, S., Kuriakose, J.: Real world smart chatbot for customer care using a software as a service (saas) architecture. In: 2017 International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)(I-SMAC), pp. 658–664 (2017). IEEE
- [122] Williams, C.: Online invoice management system: Software as a service (2017)
- [123] Opanasenko, M.: Customer journey in B2B SaaS business models (2017)
- [124] Yrjönkoski, T., Systä, K.: Productization levels towards whole product in saas business. In: Proceedings of the 2nd ACM SIGSOFT International Workshop on Software-Intensive Business: Start-Ups, Platforms, and Ecosystems. IWSiB 2019, pp. 42–47. Association for Computing Machinery, New York, NY, USA (2019). <https://doi.org/10.1145/3340481.3342737> . <https://doi.org/10.1145/3340481.3342737>
- [125] Panov, A.: Subscription and payment systems for saas applications (2022)
- [126] Sullivan, G.M., Artino Jr, A.R.: Analyzing and interpreting data from likert-type scales. *Journal of graduate medical education* **5**(4), 541–542 (2013)
- [127] Dawes, J.: Do data characteristics change according to the number of scale points used? an experiment using 5-point, 7-point and 10-point scales. *International journal of market research* **50**(1), 61–104 (2008)
- [128] Lah, T., Wood, J.: Technology-as-a-service Playbook: How to Grow a Profitable Subscription Business. Point B, Inc, ??? (2016)