

The transformation of a B2B IT service company from customer-specific software development to SaaS product development

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ABSTRACT,

Recent cloud developments enabled Software-as-a-Service business models which are proving to be very profitable. The most successful software companies are adopting these business models and even allow smaller software companies to launch own SaaS applications on their digital marketplaces. Therefore, the role of existing IT service companies changes from reselling and implementing the products of the software vendors to developing own applications. A business model transformation from customer-specific software development in projects to SaaS product development is required. This design-inspired case study examines an IT service company, here called “Company A”, that is already part of a value creation network of a software vendor, here called “Company B”, and aims to successfully transform to a SaaS product business model. It has been found that the transformation bears significant risks due to the required acquisition of new resources. Simultaneously, existing literature offers different models to successfully create scalable software products. After gaining insights from a literature review, this thesis explores the developments of leading software companies. Furthermore, 10 interviewees from the case organizations and its partner network are conducted to gain further insights on the applicability of the theoretical models. Finally, this thesis is aimed to provide Company A with a valuable model for transforming towards a SaaS product business model with low-risk involvement. In addition, this thesis could be used as a generalizable model for the partner network of Company B.

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Keywords

SaaS, product development, business model transformation, value creation network, on-premises to cloud, strategy

1. INTRODUCTION

In 2021, eight of the ten companies with the highest market capitalization in the world are software product and service-producing technology companies (Statista, 2022). These technological leaders understand utilizing modern technology like cloud computing and creating products for broad markets. The adoption rate of cloud computing software among organizations is increasing significantly. Especially software as a service (SaaS) products are in demand.

SaaS is defined as a method of delivering software online via a subscription instead of buying it upfront as a license and installing it on individual computers (Gartner, 2022). According to estimates, the SaaS market is worth approximately 145.5 billion US dollars in 2021 and still growing (Statista, 2022). Organizations understand the benefits of renting software instead of purchasing it through licenses because “many business cases will find that the lower internal IT requirements, reduced capital investment, faster implementation, coupled with contractually guaranteed reliability and security, make SaaS a very compelling choice of software delivery models.” (Waters, 2005, p. 39).

Besides the customer benefits, SaaS business models show high scalability. Scalability defines businesses that can grow their revenues faster than the underlying cost base (Stampfl, Prügl, & Osterloh, 2013). Therefore, traditional software vendors need to realize this ongoing trend and evaluate whether a transition from a license business model towards a SaaS business model might be necessary.

IT service companies usually monetize their consulting expenses and software development efforts in customer-specific projects. This business model is dependent on the hours worked by digital consultants and therefore lacks scalability compared to software product companies. A business model consists of the architecture or the design of how value is created, delivered, and captured (Teece, 2010). The goal of companies is achieving growth in revenues or increasing profits by improving and innovating processes or product offerings. Business model innovation thus defines the process of renewing, pivoting or enhancing an existing business model (Amit & Zott, 2012).

The potential for new software products might be recognized by collecting customer requirements in their projects. In scientific literature, the process of using insights from customer projects for software product development is called productization (Artz, van de Weerd, & Brinkkemper, 2010). Therefore, productization might be a tool for IT service companies to innovate their project-based business model with revenue depending on billable hours towards a scalable product business model.

The SaaS development proceeding and digital platforms like, for example, the Apple App Store, Google Cloud Platform or Salesforce CRM Platform are omnipresent. These might unleash new potentials by productizing customer-specific solutions into a cloud product (Boillat & Legner, 2013). An existing installed customer base can be found on these platforms, which offers an attractive total addressable market. In addition, the sales and installation of the applications do not require physical delivery, which emphasizes the scalability of a SaaS business model (Stampfl, Prügl, & Osterloh, 2013).

Besides logistics, the value creation network of software vendors changes in general. Previously, the scarce resource of software developers created revenues per hour of work to install and maintain servers and applications at the customer site. These resources can now be utilized to develop standardized products that enhance the functionality of the existing software and can be used by more than one customer. The potential for a scalable

business model with recurring revenues is unleashed (Nieuwenhuis, Ehrenhard, & Prause, 2018).

Scientific literature offers several concepts for the processes of productization. However, the ongoing development of the SaaS market creates new challenges that are not covered in the traditional license-based productization literature. Only one paper has developed a model to productize from a project-driven business model toward a SaaS product in the context of enterprise software (Yrjökoski & Systä, 2019). As the business model innovation also requires low-risk product development, concepts like the Lean Startup Model will be explored (Ries, 2017). This thesis aims to utilize the findings of the existing models and the insights from an external exploration of leading software companies to enhance these by conducting a design-inspired case study with two companies.

The research question is: **How can a B2B IT service company transform from a project-based customer-specific software developer to a standardized SaaS product developer?** Therefore, the purpose is to understand the tasks that need to be performed to transform into a SaaS product company successfully. Design-oriented research thus is an appropriate tool to answer the research question.

2. THE PROBLEM-SOLVING APPROACH: STRUCTURE AND INTAKE

2.1 The problem-solving approach

The given problem of this thesis requires a combination of theoretical and practical knowledge. An isolated literature review might thus not result in a comprehensive solution. Therefore, this thesis is inspired by the problem-solving approach. Van Aken & Berends have developed this approach in their book “Problem Solving in Organizations” (van Aken & Berends, 2018). It is a methodology that combines design-oriented and theory-informed ways of solving a specific problem in a case organization. Although the approach is well-suited for the given problem of this case study, the given time frame of this bachelor thesis project is too small to apply the entire problem-solving cycle (figure 1). This thesis extracts the problem definition from the intake meeting and then focuses on analyzing the underlying challenges with the business transformation. As a result, a transformation model is created. Therefore, this thesis focuses on the analysis & diagnosis part and the solution design component and can therefore be considered a design-inspired case study. However, the solution design will not include a holistic change plan for the case organization but a simplified theory-informed model that includes tasks on transforming from an IT service company into a SaaS product company. The process components of intervention, evaluation & learning, as well as problem definition, are thus not applied.



Figure 1 the problem-solving cycle (van Aken & Berends, 2018).

2.2 Case Organizations

This thesis focusses on the partnership of a German and an Italian software company. The German software vendor Company B has produced software for 30 years and is a leading European provider for document management software. It serves organizations from public administration, industry, banking, healthcare, retail, and more. Over the years, it has established partnerships with more than 300 companies that sell, implement, and enhance its products. The Italian IT services Company A joined this competence network more than 15 years ago and has expertise in implementing the software. Its main revenue streams are license sales and monetizing digital consulting expenses on an hourly basis and thus depend on the hours worked by consultants. This constraining factor emphasizes the limited scalability of the business model of an IT service company.

Due to the global development around cloud computing and the rise of the platform economy, Company B has started a business transformation (Parker, Van Alstyne, & Choudary, 2016). First, it shifted its existing on-premises products to modern cloud infrastructure. Also, a change in the revenue model was required, as customers do not buy licenses upfront but pay monthly recurring fees for the hosted products. Company B is still in the transformation process with growing SaaS revenues and stagnating software license sales. Therefore, pivoting the business model towards the cloud seems to be the right strategy.

Secondly, Company B has established a marketplace that offers customers to purchase SaaS products online. Besides its own products, Company B encourages partner firms to develop applications for the marketplace. The 12,000 addressable customers might be attractive for the partners. The increasing number of new features and app builders increases the platform attractiveness for both sides. Thus, the potential for network effects is created and pursued by Company B (Zhu & Iansiti, 2019).

However, the marketplace adoption is still in its infancy, and many existing partners keep selling licenses locally and implementing individual software as self-hosted solutions. Therefore, not only Company A is interested in the transformation to create new revenues. Additionally, Company B is interested in the transformation model to encourage partner organizations to create desirable products for the marketplace.

The underlying challenge of the thesis case is twofold. Firstly, Company A should incrementally change its offering from on-premises to cloud software. This requires organizational learning and new resources. Secondly, the company should pivot its business model from selling consulting services hourly to productizing its knowledge from customer projects into functionality-enhancing applications.

Therefore, this research examines the tasks for companies pursuing SaaS transformation and aims to design a transformation model from developing customer-specific on-premises solutions to offering SaaS products. One solution is utilizing platforms like the marketplace of Company B.

2.3 Intake Meeting

The purpose of the intake meeting in March 2022 was to discuss the requirements and the expectations of the thesis project. To define the underlying problem, the author of this thesis invited the Market Director Retail and the Senior Business Partner Manager International of Company B and the CEO, the Head of Sales, and the Marketing Manager of Company A.

In the meeting, it was discussed that Company A has a strong consultancy and license reselling business in South Tyrol and is interested in becoming a third-party developer for the marketplace of Company B. Due to the low consulting fees in

Southern Italy, it has not yet expanded to the entire Italian market. However, if a SaaS product can be developed, significant growth potential is expected, which is shared by Company B.

Organizations within the entire customer portfolio and new customers request SaaS solutions as they have financial and regulatory benefits. The customers do not need to host and maintain the software products and can rely on the software vendor. Therefore, the development to cloud is market-driven. As the cloud offers scalability and the central part of the work is done when developing the product and not in the implementation part, the constraint of low consulting fees in new regions can be ignored. In addition, scarce software developers can develop products instead of individual project software.

The key challenge for solving the problem is finding relevant product ideas that are to be developed at scale. New product development resources are required, which creates high risks. A generalizable transformation model for a SaaS transformation might be interesting for the entire partner network of Company B. By utilizing standardization, markets can be addressed quicker, easier, and more focused without cannibalizing the project business significantly. The intake meeting has proven the relevance of the research topic for both companies.

2.4 External Exploration

The purpose of the external exploration is to gain insights into how established companies have transformed their business model into a SaaS product business. Both selected companies are associated with enterprise software, not cloud-native and have launched digital marketplaces for third-party developers. Thus, the value creation networks are comparable to the case value network.

Microsoft has once sold its Office products like Word, Excel, PowerPoint, or Outlook in licenses. Customers had to run the application on their own servers and were responsible for maintaining them. Nowadays, the company offers its Office 365 products as a service. Microsoft is hosting the application on cloud servers and maintains it there as a service for its customers.

To realize the benefits of a SaaS business model, Microsoft started a digital transformation process in 2014. The company faced declining sales and stagnating share prices. Therefore, the company decided to shift its products into the cloud and to integrate it into different platforms, for example enabling interoperability with Apple products. Hitherto, Microsoft has developed all hardware and software components itself. However, the pace of ongoing technological developments was too fast for developing everything in-house. The new CEO, Satya Nadella, reallocated resources from losing business model to growth opportunities. Also, the revenue model was changed from upfront license payments to a subscription-based model. These decisions exposed the company to certain risks and have led to lower short-term revenues due to missing upfront payments. Instead of forcing to develop predefined products like hardware or search engines, Microsoft's engineers were able to focus on customer problems which have created business opportunities in terms of standardized products (Denning, 2021).

Recently Microsoft has launched a marketplace where independent software vendors can develop applications that enhance Microsoft products. This is comparable to the situation of the case organizations. Partners that previously were reselling or implementing Microsoft products are encouraged to develop their own applications. The smaller software companies can access the large Microsoft customer base with specific industry scenarios and customized offerings to create new sales and growth opportunities (Microsoft, 2022). Thereby, Microsoft responded to market developments and customer requirements.

The transformation was successful, and the cloud business exceeds other business segments in terms of growth (Statista, 2021).

SAP is currently transforming from license sales to a SaaS business model. In the early days, SAP served customers on an individual, project-driven basis. Incrementally, it has clustered customer requirements and productized its business model. Currently, SAP is transforming to offer its ERP system as a SaaS solution. Of course, the transformation required SAP to transfer its products from on-premises to cloud offerings. Therefore, a reallocation of resources was required because the objective of new product development was cloud technology (SAP, 2022).

The revenue model changed from receiving upfront license payments to a subscription-based model with monthly recurring revenues. In addition, SAP announced stopping maintenance and support of self-hosted product versions at the end of 2027 to encourage customers to migrate into the cloud (SAP, 2022).

However, the transformation does not only require internal change at SAP but adapting its environment and partner channel. Traditionally, SAP interacted highly with its partner network, as it realized it could not cover all customer requirements with in-house software creation. With on-premises products, the SAP partner network was divided into four partner roles: Reselling the existing standard SAP products, implementing the SAP software with the customer, delivering storage and networks as a hardware partner, and third-party software developers creating software for the standard SAP products (Guo, Nikolay, & Wan, 2019).

The cloud platform SAP HANA offers new opportunities for the partner network in terms of a marketplace. To further enhance the functionality and value of SAP products, partner companies can utilize their industry and process knowledge to develop applications for the marketplace. Due to cloud technology, it is not necessary to be physically present with the customer, and the logistics part of software delivery is becoming less relevant. Therefore, also the roles of partners have changed. Only reselling or implementing SAP products might not be enough to stay competitive in the future. As the partner companies know what problems the customers face and what demands exist, developing their own enterprise applications for the marketplace creates new growth opportunities and an enhancement of the business model for existing IT service companies (Guo, Nikolay, & Wan, 2019).

The marketplace development and the changing value creation network is interesting in terms of this thesis, as the case organizations undergo a similar process. More than 30% of the revenue made by SAP is coming from cloud offerings, with an increasing trend (Statista, 2021). The current transformation towards a SaaS and platform business model is still ongoing, showing that the thesis topic is highly relevant.

The external exploration has demonstrated three important considerations for the case study. Firstly, relevant and successful players in the software industry with high market capitalizations are transforming to a SaaS business model. This required internal changes as well as adapting the value creation network. Therefore, the second important fact is that the logistics part is becoming less relevant for IT service companies. However, new opportunities arise as the incumbent firms cannot develop every functionality themselves. Thirdly, the insights from the external exploration are useful for understanding the current and future state of the business model of software companies.

Nevertheless, the discussed companies have resources that are not comparable to the resources of the case organizations, like, for example, capital, employees, customers, and communities. In addition, the discussed cases are focused on the perspective of platform providers instead of IT service companies. There is little

evidence for companies transitioning from IT services business models toward a SaaS business model. Thus, the next step is to find appropriate models and comparable case studies that can be enhanced by expert interviews.

3. METHODOLOGY

3.1 Literature review

The purpose of the literature review is to discuss relevant theoretical constructs and applicable models for the given problem. In addition, research gaps can be detected that can be filled with the data collection of the author. The author has searched for scientific literature with a search strategy. As a lack of scientific literature was expected for the given problem, it is enhanced with literature from management handbooks, company websites and other publicly available information. With desk research and database search on Scopus and Google Scholar, relevant theory has been found. Keywords like “Productization”, “SaaS Productization”, “Software Startups”, “SaaS strategy”, “SaaS transformation”, and “Business Model Innovation” have been used. A relevant number of articles were found. As criteria to assess the quality of the articles, the author has considered the number of citations and the type of the article. Some articles have not been published in journals but were presented as conference papers and did not have significant amounts of citations. To gain deeper insights into the topic, the author thus has used the snowball method. This method proposes to look at references from related articles to find more relevant articles and potential topics. This resulted in several theories and models that might be beneficial for solving the practical problem by combining them and validating them in expert interviews.

3.2 Semi-structured interviews

After the problem analysis during the intake meeting and understanding the topic through an external exploration and literature review, the author can conduct semi-structured expert interviews. The findings are the basis for an interview guide with open questions that supports the interview process (see appendix 1). The semi-structured way is used because the aim is to come up with follow-up questions after an answer has been given. It will be possible to let experts show their expertise and experiences instead of answering closed questions. This helps to understand the topic even better. Also, the experts can give their opinion on the scientific models. The interviews should bring insights and new information to the project (Adams, 2015). To process the collected data, the interviews will be recorded and summarized. The summaries of the interviews can be found in appendix 7.

The interdisciplinary topic requires insights from different domains and organizations. From the case organization Company B, eight people with the following positions will be interviewed: Market Director, Senior Manager Partners, Product Manager, Sales Manager, Senior Manager Corporate Projects, Director Product Discovery, Manager New Partners, Director Partner & Alliance Management. In addition, in the partner network of the case organization Company B, two companies have already managed the transformation to a standardized SaaS business model and the author can interview the CEOs of both organizations. Thus, ten interviews will be conducted in total.

3.3 Workshop

The thesis project aims to develop a transformation model to successfully transform the business model from a customer-specific to a product-based SaaS business model. Therefore, the author will invite the participants from the interviews and potentially more people from the case organization to a workshop. In this workshop, the thesis project will be presented. The goal of the workshop will be to discuss the transformation

model. All participants are invited to give feedback on the model to create a discussion on the practical applicability and relevance of the model. In the end, the author will have gained insight into the model that was derived from theory and expert interviews and can adapt it according to feedback towards a final version.

4. ANALYSIS AND DIAGNOSIS

4.1 Literature review

4.1.1 *Productization: from customer-specific software development to product software development*

In the literature review, the theoretical background behind the intake meeting and external exploration is examined. In theory, the process behind creating standardized products from findings in individual project settings is called productization. In this context, “a software product is defined as a packaged configuration of software components or a software-based service, with auxiliary materials, which is released for and traded in a specific market.” (Xu & Brinkkemper, 2005, p. 526). Furthermore, several concepts describe the process of productization. IT service companies that create revenues by selling their software development service in customer-specific individual projects can use productization to create a more scalable business model. In individual projects, the companies can learn about the requirements and expectations of the customers. In case there are several customers with the same request, features from old projects can be reused. The next step is to recognize products within these features and develop a product platform. Afterwards, the product platform needs to become standardized, and as a result, the company either created a customizable software product or a standard software product. Both are desirable end states and have led the company from an individual, customer-specific, toward a standardized product business model (Artz, van de Weerd, & Brinkkemper, 2010).

The requirements for an organization to create products from project insights can be derived from organizational learning theory. The ability to incorporate the knowledge from external projects into the own product development requires a learning organization. A learning organization is defined when it can solve problems systematically, experiment with new approaches, learn from past experiences, learn from best practices, and can transfer knowledge within the organization quickly and efficiently (Garvin, 1993).

An organization also requires understanding and using new information to exploit opportunities, which is called absorptive capacity. The theory derives from R&D processes and describes that companies need to understand and absorb external knowledge for innovation. In the thesis case, the external knowledge is given in the customer project, for example understanding customer problems with enterprise software. This knowledge is a byproduct of the core project business and can be utilized in product development (Cohen & Levinthal, 1990).

The productization process was tested in different case studies. Two case organizations transformed from developing customer-specific software to product software. Over a period of ten years, the described steps from the productization model were recognized. Thus, the theory has been tested successfully (Leenen, Vlaanderen, Van de Weerd, & Brinkkemper, 2012; Guvendiren & Brinkkemper, 2014). However, in one of the case studies, the scholars claim a lack of generalizability. Due to the low amount of case studies, the model cannot be applied in practice without limitations. Furthermore, the scholars argue that it is hard for IT service companies to follow a market-driven and long-term product development process because the current business model is based on hours sold for customer-specific

developments. This results in missing revenues for the transition period, which might threaten the existence of the company (Guvendiren & Brinkkemper, 2014). Therefore, the given problem of this thesis also needs to be examined from a business model perspective instead of only considering a product development process perspective.

4.1.2 *Transforming from an on-premises to a SaaS business model*

The delivery of enterprise software applications is changing from selling licenses to companies that host the applications on their own servers to software vendors providing the applications via a network. This shift results in a decreasing amount of customer-specific software and leads to software vendors launching standardized products. Revenues are generated as monthly subscriptions or usage-based instead of upfront license payments (Boillat & Legner, 2013). The goal of the case organization is to become less dependent on the hours worked by consultants as the main revenue stream. Therefore, only adapting the current service offering from on-premises to SaaS consulting and reselling is not enough. The development of a product that can be used by many companies is required to create a scalable business model, which explains the combination of productization, business model and SaaS theory in this thesis (Stampfl, Prügl, & Osterloh, 2013).

The goal of companies is to achieve growth in revenues or increase profits by improving and innovating processes or product offerings (Amit & Zott, 2012). The theory behind the architecture or the design of how value is created, delivered, and captured is business model design (Teece, 2010). As this research is not only associated with the design of a business model but also with its transformation, the most applicable research stream is business model innovation that concerns organizational change. The organizational capabilities and learning mechanisms, as well as leadership, are important areas for this kind of business model innovation (Foss & Saebi, 2017).

To further examine how the roles, actors and activities change through the shift from on-premises to cloud-based technology, a generic value network of cloud-based enterprise software vendors was created. One important finding of this research is the change of roles and activities for the partners of the existing software vendors. Technological platforms and marketplaces create opportunities for existing partners and external developers to create applications that support and extend the core functionality of the existing software (Nieuwenhuis, Ehrenhard, & Prause, 2018). Thus, the traditional role of companies that resell and implement software changes as the logistics of software delivery become less relevant. By developing add-ons, these companies can access the larger customer bases of the platform providers, and “traditional partners . . . will increasingly productize their industry-specific and segment-specific knowledge in the form of extensions to core cloud solutions.” (Boillat & Legner, 2013, p. 54).

The Business Model Canvas (see appendix 4) by Osterwalder and Pigneur can be used as a tool to compare and roadmap the different business models of on-premises software and cloud solutions (Yrjökoski, 2018; Boillat & Legner, 2013). When the existing on-premises business model is compared with the desired cloud business model, all nine elements of the Business Model Canvas are affected. This includes the customer-facing elements which are value proposition, customer segments, customer relationships and channels, as well as the resource base and value configuration, which key resources, key activities and key partners, and the financial elements, which are revenue streams and cost structure. To what extent and in which the

elements change depends on the enterprise software and business model of the case organizations (Yrjönkoski, 2018).

There are different types of SaaS business models that require different business models. If enterprise SaaS products are sold, these usually include big customers, personal sales, and efforts for implementation. A pure-play SaaS business model, on the other hand, is standardized and requires less human interaction that leads to an initially high development effort but rather low marginal costs per product sold. Lastly, there are self-service SaaS products which are simple applications that are easy to adopt, fully automated and therefore have close to zero marginal costs (Luoma, Rönkkö, & Tyrväinen, 2012).

However, most case studies focus on the transformation of big software vendors like SAP, Oracle, and Microsoft. Furthermore, there is a lack of research on small and medium-sized software vendors and how they can be supported with their transformation from an on-premises to a SaaS business model (Yrjönkoski, 2018).

4.1.3 Productization: different process levels to create a product in a SaaS business

As discussed, IT service companies like the case organizations might need to productize their knowledge from previous projects and customer requirements to develop own applications. This might recall the need for the productization model from Artz, van de Weerd & Brinkkemper. However, the ongoing developments toward cloud computing and customer expectations show that the productization model needs to be adapted. Customers expect new functionalities from SaaS products regularly. In addition, these products should be distributed globally via the internet to offer the highest degree of flexibility and adaptiveness (Bosch, 2015).

Only one conference paper deals with productization towards a SaaS product, stating that most tasks are to be performed before mass distribution (Yrjönkoski & Systä, 2019). Therefore, SaaS productization requires a change in the business model.

According to theory, there are four types of business model changes, the creation of a new venture, the extension of the current business model, a part of the business model that is replaced by a new process or the termination of a certain process (Cavalcante, Kesting, & Ulhøi, 2011). However, the transformation of the case organization might require that two business models get pursued simultaneously. Therefore, a new dimension of business model change is required that introduces the integration of a new business model within an existing business model (Chasin, Paukstadt, Gollhardt, & Becker, 2020).

The SaaS productization process is organized by the departments of marketing, sales, distribution, product, invoicing as well as end-of-usage and is separated into three levels (appendix 5 & appendix 6). The proof-of-concept level is the first one. A prototype is developed, and a first customer needs to be found to validate the value proposition. On level two, the product is improved with customer feedback, and the sales team directly sells it to the first ten customers. The product-market fit needs to be further improved. Processes like invoicing remain manually. As soon as the evaluation of the product-market fit is final and the first customers are satisfied, the product is ready for the third level, mass distribution. Marketing efforts can be increased, e.g., by uploading YouTube videos and publishing white papers. The invoicing and the end of usage processes need to be automated to achieve scalability. After every process level, the management of the company can decide if the product will be terminated or not. If it appears that customers do not financially commit or the product-market fit does not seem to be strong enough, the investment can be stopped, and the product gets removed from

the portfolio. Therefore, the market entry risk and the invested value at risk are decreased (Yrjönkoski & Systä, 2019).

4.1.4 Different approaches to generate and validate relevant product ideas

The SaaS productization model can thus be used to figure out how to develop a product. However, the step of discovering what product to develop is underrepresented. Scientific literature focuses in this domain on early stage software startups and business model innovation tools. The theory behind these tools can be associated with organizational capabilities for successful business model innovation, for example, experimental orientation, coherent leadership, company culture and balanced resource use. These are required to create value in a sustained way (Achtenhagen, Melin, & Naldi, 2013). Business model innovation requires an experimental approach and learning from failures. New insights are created and can be used to establish a new business model that gradually replaces the existing business model to create higher revenues or profits (Chesbrough, 2010).

Effectuation describes an entrepreneurial process that focuses on different effects with a set of given means. It allows for experimenting with different outcomes or, for example, products. With these experiments, affordable losses and acceptable risks should be created. An evaluation of the given means and the required resources create insights for the necessity of cooperative strategies to gain external resource access. This experimental approach is applicable in the case of this thesis because the success of a new product or value proposition but can be tested using design experiments (Sarasvathy, 2001).

Concepts like Lean Startup and Agile Development build upon the experimental capabilities of organizations and have been used to create The Early Stage Software Startup Development Model (TESSSDM, see appendix 2). The focus lies on the challenges associated with finding a product idea worth scaling and how a company can overcome these challenges. The first proposed step is idea generation. By conducting interviews, systematically brainstorming, or monitoring the workday of a customer, ideas for new products can be found. In the second step, all ideas are put into a backlog. Criteria like the seriousness of the problem that the product should solve, the market potential, or the ease of finding customers are used to prioritize the ideas. The funnel stage starts with validating the problem and the solution by talking to customers. If these steps are successful, a minimum viable product can be built to validate the problem and the solution on a larger scale by potential customers. Examples for gathering validation data are test data of customers, surveys after test usage or feedback interviews. If this validation also turns out to be successful, the idea can be considered validated and is ready to be developed on a large scale (Bosch, Holmström Olsson, Björk, & Ljungblad, 2013).

Amazon uses an innovation model called Working Backwards to create major products and initiatives (see appendix 3). One should create a press release and frequently asked questions document to communicate an idea, the PR/FAQ. Employees should not think in supportive quantitative models and visualization tools. The press release should highlight the benefits for the customer, the target group and why the product is worth building in less than one page. The FAQ can be divided into internal questions that deal, for example, with resources, price, expected revenues or feasibility. The external questions deal with the customer perspective regarding benefits and user experience. PR/FAQ is an iterative framework that allows rational decision-making and incorporating feedback rapidly. Senior management and leadership should critically discuss the PR/FAQ document to find missing points or required changes which should lead to several drafts. Also, most of the generated

ideas will be terminated in the process. This is risk mitigating because it is thoroughly thought about the product and its features before resources are allocated to product development. In addition, it helps to understand the customer problem and whether the product solves it. In case the product idea is pursued, the process shows missing resources. Hiring employees, establishing partnerships, or acquiring a company might be solutions. To conclude, Working Backwards is appropriate to gain a detailed, fact-based, and data-oriented understanding of a customer-centric problem and product (Bryar & Carr, 2021).

4.1.5 Conclusion of literature review

To conclude the first part of the literature review, it can be stated that applicable models for the given problem exist. The productization process helps understanding the challenges with creating software products. However, customers demand SaaS solutions. The productization process from Artz et al. thus cannot be used without adapting it. In addition, the value creation networks of enterprise vendors change and require IT service companies to pivot their business model (Nieuwenhuis, Ehrenhard, & Prause, 2018). The organizations need to utilize the existing knowledge from previous projects and customer requirements to develop own applications that enhance existing enterprise software (Boillat & Legner, 2013). The Business Model Canvas can be used to visualize the required changes. As all elements are subject to change, it is appropriate to focus on each element specifically and determine the best outcome for it in the desired cloud business model (Yrjökoski, 2018; Boillat & Legner, 2013). To utilize the project knowledge and develop products with a product-market fit, the productization process for SaaS businesses from Yrjökoski et al. might be useful. It considers modern developments and includes SaaS-specific challenges. However, the intake meeting demonstrated that the case organization struggles with finding an appropriate product worth developing at scale. Therefore, the TESSSDM or Working Backwards might be complementary for the case organizations.

In conclusion, the literature review proves that the case problems also exist in research. The combination of productization, business model innovation and SaaS strategy is required to develop a transformation model. To work towards a solution design, the next step will be to interview experts from the case organizations to enhance the analyzed models. It might turn out that the theories are valid and can be used to some extent. Some elements of the models and processes might be ignored, or new elements need to be added. Based on the education and experience of the author, the input of the interviews will be used to combine different frameworks of the literature review into a unique business transformation model for the case organization.

5. RESULTS

The results of the interviews and the workshop will be presented in the following section. There will be a focus on the key findings that contribute to answering the research question, *“How can a B2B IT service company transform from a project-based customer-specific software developer to a standardized SaaS product developer?”*. According to the interviews, software companies have to consider switching to a cloud business model as the market adoption of the technology increases significantly. The role of partner companies changes from reselling and installing existing software to developing own cloud applications enhancing the functionality. Online marketplaces for enterprise software can be used to offer and sell these applications, which offers access to new customers and decreases regional dependency. Transforming towards the new business model requires to discover customer-centric product ideas with unique value propositions. Experience has shown that creating products based solely on requirements and learnings from customer-

specific projects has not led to broad market success. IT service companies need to acquire and develop new software development capabilities that were not existing yet to create own software products. The availability of these resources is low, while the acquisition costs are high. A summarizing table of the results can be found in appendix 7.

5.1 The main differences between an on-premises and a SaaS business model

All interviewees have stated that new enterprise software development is dominantly created in the cloud. Because resources for maintaining an own IT infrastructure are rare, most customers request and demand SaaS applications. Therefore, the cloud transformation is market-driven, and IT service companies have to consider this change to stay competitive in the long run.

The software and IT industry was described as dynamic and “a continuous delivery of innovation is required to adapt to the changing market environment”. SaaS requires an agile adaption of the existing business model. One example for the dynamic development is the change of the customer behavior. In on-premises software licenses sales, the customer took a decision for a software product for the next 5-10 years. The reason is that the costs for the customer occurred upfront. Therefore, customers tried to negotiate as many software users as possible for the least possible price. Now, the development of cloud software has led to subscription and pay-per-usage revenue models. Customers thus book a small number of users for a short time. Then, “the software application is tested, and the customer can quickly decide whether the contract gets terminated”. If the product is valuable, the customer incrementally increases the number of users and the costs per month. If not, the contract gets terminated and the customer sources software at another vendor.

Therefore, also the role of IT service companies is changing. Previously, IT service companies were able to resell and implement existing software products on-site at the customer. However, SaaS applications can be distributed via web and are not hosted by the customer itself. Therefore, the logistics part of software delivery is becoming less relevant. Customers can inform themselves about the software products and book them online without the need for an intermediary company. Also, the consulting role is changing. On-premises consulting required knowledge about installation and server setup. The new role consists of consulting the customer which products fit to the underlying business processes, how these can be improved and how new software can be integrated into the IT landscape.

Another development includes the establishment of marketplaces for cloud enterprise applications by software vendors. An opportunity for third parties to develop own SaaS applications. These can access larger customer bases from the software vendors and other partner organizations. In addition, “the IT service company can offer its customers the knowledge and the products from other companies”. This complements and enhances its own offerings. Network effects are thus generated by marketplace development which means that the attractiveness of the platform is increased with every application and customer. By developing a unique value proposition for the platform, the IT service organization can grasp new business opportunities.

5.2 Required resources for the SaaS transformation

As described, the market requirements change and the value creation network of enterprise software. New skills, capabilities and resources are required for IT service organizations. Three key resources are most important for a SaaS transformation.

Firstly, the development of cloud applications requires a new software development skill set. The existing capabilities of on-premises consultants consist mainly of customizing existing software products and installing servers. However, “SaaS product development requires modern web development and programming which IT service companies usually do not possess”. Even if these resources exist, for example for programming interfaces for the communication between two software applications, the employees are busy with projects.

Therefore, IT service companies have to develop application building capabilities. However, an interviewee from an organization that has already gone through the transformation argued that this creates a significant financial risk for the company. If the software developer that is hired does not build a product that creates revenues, the entire business threatens bankruptcy. In addition, as soon as cloud development starts, servers at infrastructure providers need to be rented and create recurring costs. The second required resource for a SaaS transformation is thus financing. The IT software organization has to figure out its underlying risk profile. Then, “it is possible to calculate the required financial resources and it can be determined if the current project business is able to finance the new SaaS product business”. Another option would be to create a spin-off company that gets equipped with venture capital and is independently responsible for setting up the product business. Financing SaaS with venture capital is a common process in the software startup domain. This emphasizes that investors consciously invest into non-profitable SaaS startups expecting the business to become profitable after some years.

Thirdly, a mindset shift is required. Considering the new SaaS product business as an internal startup would contribute to this. On the one hand, the different skills that are required in the consulting business need to be recognized and operationalized by the existing employees. At the same time, the change of the revenue model from upfront license payments requires the management team to think differently about the revenue situation. Instead of receiving revenues upfront with a low-risk involvement after sale, the subscription model could result in a customer terminating the contract after a short period of time. Furthermore, the change from a project-driven business towards a product business results in a different way of measuring (employee) success. Previously, management was able to track revenues per consultant. The revenue increased with the number of billable hours by the consultant. However, if the consultant would contribute to pre-sales activities or to product development, this is less measurable and trackable. Thus, a mindset shift is required for the financial perspective, the skills development, and the understanding of consumer behavior.

5.3 Product Discovery and Productization

Launching SaaS products on marketplaces requires finding a valuable product. The key to developing a demand-generating product is a customer-centric product discovery process. In earlier years, most input for product ideas was the project business. If applications were built for a specific customer, the software vendor tried to develop a standardized product for the mass market. However, experience has shown that these products most often did not become successful because the product-market fit was not mature. Therefore, the process of productization, which means creating products from project knowledge, should not be adopted by IT service companies.

In contrast to the interviews with people from the software vendor, the CEO from the organization that has already managed the SaaS transformation, stated that “the project business is still the most important input for product ideas”. Of course, this does not mean that features from old projects can simply be used for

the product business, but that the project business is useful for generating ideas and understanding the perspective of customers. Also, weaknesses of the original software from the software vendor are an input for functionality-enhancing product ideas. The perspectives of the software vendor and former IT service companies thus differ regarding productization.

Next to productization, modern product discovery processes are still customer-centric, but more market-driven. Two models were mostly used by the interview partners. One model describes the innovation process of Amazon, which is called Working Backwards. As soon as a product idea is generated, the employee should draft a press release and an FAQ document to pretend that the product is already finished. These documents can then be used as a basis for discussion. Ideas can be validated, and companies can examine if a customer problem is solved, the market size is interesting and the required resources for product development exist. Most of the generated ideas get terminated in this process which is useful “because the idea is ignored before scarce software development resources create a prototype”.

Another model that was described widely is the Lean Startup approach. In general, the Lean Startup approach encourages entrepreneurs to walk through a build, measure and learn cycle. After generating ideas, the company should build a minimum viable version of the product. Customers can test this prototype and give feedback. Based on the feedback and the data generated by the customers, the company receives insights. These help to learn what customers need and if the product needs to be updated or terminated. This cycle “should be repeated regularly”. The Lean Startup approach thus requires little resources which minimizes risks in the product generation.

However, models like Working Backwards or Lean Startup are only frameworks. There is not one ideal model that can simply be followed by every company. The key is “to create an aligned product team following a clear goal and using the right tool at the right time”. Before generating product ideas, management has to create a long-term goal. Afterwards, an action plan can be created how the goal can be achieved by planning backwards from the objective. Then milestones should be created for every important step. Examples for milestones are the setup of a scalable product architecture, reaching a product-market fit or specific revenue goals. To conclude, the product discovery process can be seen as an overarching process that covers different domains from business strategy over idea validation to action plan creation.

6. DISCUSSION

The goal of this thesis is the answer the research question “*How can a B2B IT service company transform from a project-based customer-specific software developer to a standardized SaaS product developer?*”. In the discussion section, the main contributions will be presented, as well as how the findings are in line or opposed to existing research. The answer to this question can be split into three main considerations for the case organization.

First, the management has to define a strategic future goal. Thereby, activities of all employees are aligned and focus for product idea generation is given. By creating an own product department, the management emphasizes the importance of the SaaS transformation and encourages a mindset shift. Customers demanding and leading companies creating SaaS products can be used for explaining the required change process to employees.

The second important consideration is the change in financial activities. In contrast to the project and licensing business model, a SaaS business does not generate upfront revenues. A revenue gap in the transition phase from on-premises projects to SaaS products might appear. The product development efforts are the

key component of the costs and occur before the first sale can be made. Therefore, the profitability of the existing business is threatened from a revenue and a cost perspective.

Thirdly, the acquisition of required resources and the change of the revenue model bear high risks. The company thoroughly needs to consider what products to build. Therefore, the company should test different frameworks to learn what it takes to create a desirable, viable and feasible product. These can also help to determine timing for acquiring resources. All considerations have been presented in a transformation model integrating different frameworks for SaaS productization, product discovery and startup methodology. This section shows how the findings of this research contribute to the existing literature and which managerial implications can be drawn. The last section will be focused on the limitations and improvement potential of this research. As a result, future research topics are presented.

6.1 Main contributions

6.1.1 Transforming from an on-premises to a SaaS business model

Many findings are in line with the existing literature. In general, the literature review, the external exploration and the interviews have revealed that cloud technology will become increasingly important (Bosch, 2015; Guo, Nikolay, & Wan, 2019; Denning, 2021). The SaaS transformation is split into four components: the changing role of IT service organizations, the customer perspective, the financial activities, and the resource perspective.

The value creation network of enterprise software is changing. Reselling and implementing products from software vendors will become less relevant due to the provision via web technology. This decreases the demand for the logistics of software products (Nieuwenhuis, Ehrenhard, & Prause, 2018). However, the launch of marketplaces for enterprise software offers new opportunities. Software weaknesses, project knowledge or market monitoring can be used to develop marketplace applications. Gaining access to a large customer base and enhancing the value of the own offering by partner companies are recognized as benefits in the literature and the interviews (Boillat & Legner, 2013).

The revenue model changes from upfront payments for licenses and hours worked to a subscription model. In the long-term this is associated with a scalable revenue model creating high growth rates. In the short-term, the risk of a revenue gap is recognized in findings and literature (Boillat & Legner, 2013). Next to the revenue model, also the cost structure changes. A SaaS business model requires new resources like software developers and the setup of a server landscape. These costs did not occur in the existing business model and thus affect the profitability (Yrjökoski, 2018; Guvendiren & Brinkkemper, 2014).

The discussed literature was in line with the interview results regarding the required business model change. Financial activities, the delivery and logistics, and the required resources change. However, the discussed literature lacks to support IT service organizations with the timing of resource acquisition.

The findings show that timing can be determined by the confidence or maturity of the product idea. How to develop and validate product ideas will thus be discussed in the following section. The resources perspective was mentioned in the literature but not discussed as seriously as in the interviews. The interviewees compared the existing IT service company to VC-backed SaaS startups that are equipped with financial resources for several years. Competing in this area while maintaining a profitable business is challenging. It therefore is required to know what problem to solve before resources are acquired.

6.1.2 Developing the right product

Finding a product worth building and building the product right after idea validation is discussed in the literature. Productization, thus, to develop products based on features from customer-specific projects is one tool (Artz, van de Weerd, & Brinkkemper, 2010; Yrjökoski & Systä, 2019). However, the interviewees deviate from this approach. Reusing features from old projects as products has not proven to be successful. As the projects are individual, a mature product-market fit is often missing. However, the interview findings show that the project business is still a valuable source of input for developing product ideas.

Customer-centric processes are required to develop products successfully, is stated by literature and interviewees. Companies need to find a customer problem that is serious enough to be worth solving. A product solution and a demanding market can be detected if the problem is understood. The solution needs customer validation. Frameworks that build on these considerations like Lean Startup and Working Backwards were discussed in literature and in interviews. This emphasizes the practical applicability (Bryar & Carr, 2021; Bosch, Holmström Olsson, Björk, & Ljungblad, 2013). In addition to literature, the interviews show that it is not the tool that is important, but learning from failures, discovering what products should not be built and understanding which processes work for the company. Thereby, the product generation process can be strengthened.

6.2 Managerial implications

The main contribution of this research is a SaaS transformation model for the case organization. By combining different frameworks from existing literature and insights from interviews, the author has developed a transformation model (see figure 2).

The starting point for the transformation is the definition of a strategic goal. This aligns employee activities and creates an understanding of the required change. The Business Model Canvas is a tool for practitioners. A mindset shift is required. Therefore, a new department can be introduced. These considerations were not found in the literature but were considered relevant in the expert interviews.

The next step is product idea generation. Input sources are software vendor weaknesses, projects, competitor analyses, customer interviews or brainstorming. Ideas require validation by internal and external discussion. A feedback cycle determines if the idea should be pivoted or terminated. Mock-ups can be created to for better understanding the product idea. Validation and discussion models are Working Backwards and the TESSSDM (see appendix 2 & 3). Furthermore, the interviews enhance the models. The idea validation should be completed before scarce development resources are acquired. Thereby, the risk of jeopardizing the business by the transformation is minimized.

After creating a product opportunity that is desirable (product-market fit), viable (attractive market size) and feasible (technically possible), the company can acquire new resources. A scalable web infrastructure can be hosted at a provider like AWS. The new resources contribute to the mindset shift and can develop prototypes for large-scale testing. Usage data, customer feedback and surveys can help improving the product-market fit.

After the product-market fit milestone, the company can use the SaaS-specific productization framework (see appendix 5 & appendix 6). For scaling a software product an alignment of all departments is necessary and SaaS-specific methodology is useful. During prototyping, marketing can create content like a white paper and slideware, direct sales to existing customers can start while invoicing stays a manual process. The customer

feedback gets incorporated into the product. Other activities include demo material creation, price list setup, training material development and enabling fast product delivery. If individual sales are successful and the product-market fit is mature, mass distribution can start. The application is launched in a marketplace while installation and invoicing processes get automated to ensure scalability. Furthermore, marketing efforts become increasingly important to create awareness for the product in the target market. YouTube videos, product launching campaigns, and landing pages are useful tools. Moreover, a freemium model can make the product accessible and testable.

Most important is learning from failures and discovering quickly what products and features do not work. This minimizes risk and ensures organizational learning. It is also important to quickly stop product development projects that lack feasibility, viability, or desirability. Therefore, management needs to take Go/No-Go decisions for every feedback cycle. The goal is to establish the product business that is financed by the project business. The transformation model was created by the author by combining literature frameworks that are enhanced with interview findings.

6.3 Limitations and future research

A limitation of the research may be the generalizability of the results. As the interviews were conducted within the partner network of the case organizations, the results may not be relevant for IT service organizations in general. Moreover, the proposed transformation model has not yet been tested in practice which shows that the application of the transformation model bears significant risks. Although the model is backed by frameworks from literature, interviews and an external exploration, the proposed combination is unique. Testing the model in practice would thus be valuable for determining its practical applicability. If the research would be conducted long-term, it would be interesting to interview all existing partner organizations from the value creation network to achieve a holistic overview. The case organization is already part of a value creation network. Thus, the application of the model for IT service organizations that are not yet part of a value creation network would be more difficult.

Further research can be conducted regarding the platform economy. Theory often focusses on the development of platforms for established players, thus, the platform provider itself. However, the perspective of small service companies or startups that want to develop applications for a given platform lacks. Research on how a company can determine and select a platform it wants to become an application provider for required.

The success criteria and requirements for launching software products to digital marketplaces successfully would also be interesting. As this research states, the role IT service companies changes towards application developers. However, not every company will successfully manage the transition towards a SaaS business. Therefore, research is required on the role of companies that do not transform and if these are able to stay relevant and competitive. It might turn out that process consulting with cloud products is a competitive business model and that own application development will not necessarily be required.

Further research could examine risk management tools for companies that want to compete in the SaaS landscape. The acquisition of scarce software development resources bears high risks and is expensive. Also measuring the success of the taken risks can be analyzed. It could be interesting for incumbents, startups, venture capitalists and institutional investors.

Lastly, the investigation of business model dynamics in the transformation phase is interesting. The business model shift from on-premises to cloud offerings is discussed broadly in

research. Although the differences are examined, research on a transformation roadmap is lacking. Due to competition, it might not be possible that all companies moving towards cloud deploy similar business models. Therefore, research is required on how business model changes can be visualized dynamically. Impacts of decision-making on the business model might be a result.

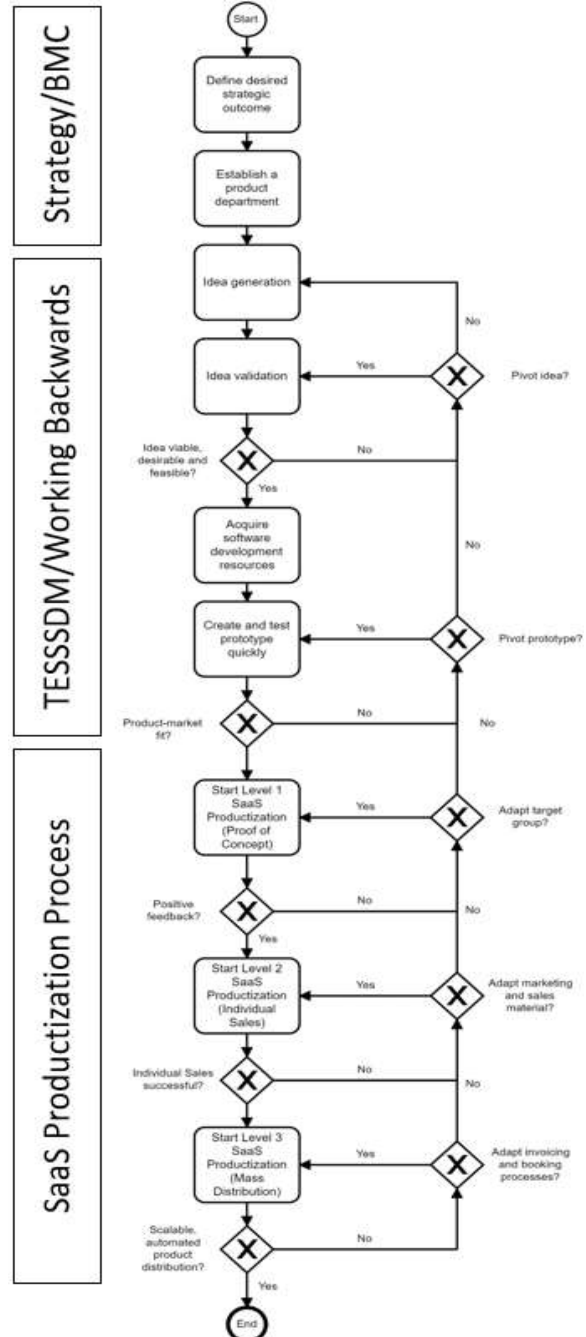


Figure 2. SaaS Transformation Model

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methodology as well as analyzing the results. I would also like to show my appreciation to all interview partners of the case organizations and its partner network that gave me the opportunity to gather data for my research. As a result of the thesis, I hope that the developed model and the presented considerations can be used in practice and help IT service organizations from the partner network to transform towards a SaaS business model successfully.

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9. APPENDIX

Appendix 1: Interview Guide

Business Model Transformation from on-premises to cloud:

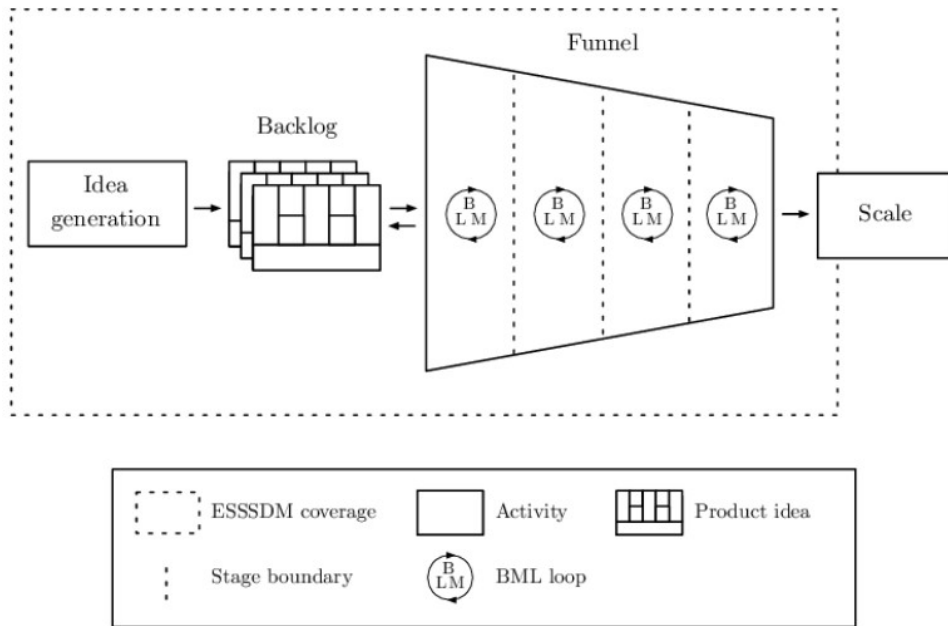
- How would you describe the required business model transformation?
- Which elements of the business model changed the most?
- What requirements are needed for the transformation?
- How can the missing revenue streams from upfront payments be managed?

Productization and Product Discovery:

- How would you describe the process of discovering a standardizable product from a customer-specific development?
- Which kind of new resources are needed? What kind of resources are not needed anymore?
- To what extent are you using standardized productization processes?
- How is the on-premises software development different from cloud application development?
- How would you describe the influence of startup methods like Lean Startup or Agile Development, Minimum Viable Products?
- How do you find ideas worth scaling?
- What kinds of methods do you use for idea generation?
- How do you rate potential product ideas?

How do you prioritize and validate these ideas in a later stage?

Appendix 2: The Early Stage Software Startup Development Model (ESSSDM)



The Early Stage Software Startup Development Model (ESSSDM), Bosch, et al. (2013).

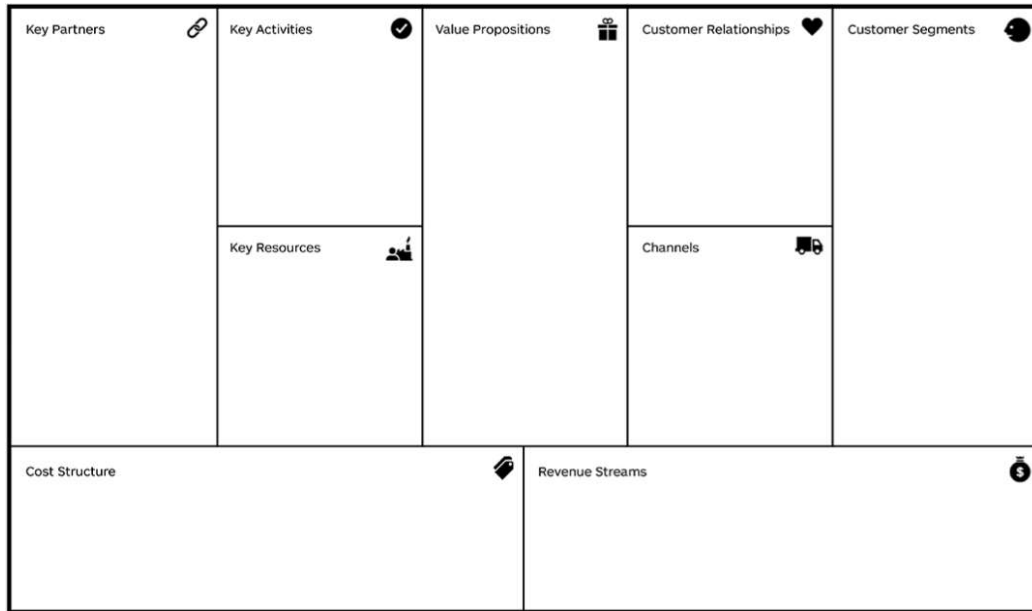
Appendix 3: Working Backwards from the Customer

Amazon's Working Backward Method



Working Backwards from the customer, Bryar, C., & Carr, B. (2021).

Appendix 4: The Business Model Canvas



The Business Model Canvas (Osterwalder & Pigneur, 2010).

Appendix 5: SaaS Productization levels, processes and tasks part 1

Processes			
Productization levels	Marketing	Sales	Delivery
Level 1 <i>Proof of concept</i>	Prototype / slideware	Hand picked prospects	The best man in the town support
	Preliminary competitor analysis	Direct selling	
	Preliminary Product / Market fit	Preliminary Pricing Model	
	White paper (concept level)	Preliminary License Model	
Level 2 <i>Individual sales cases, customers from 1st to 10th</i>	WHY customers need the solution-reasonings	Hand picked customers, customized demos mainly to existing customers or known prospects	The first level service operation model in production
	Better product / market fit, listen to customers feedback	Direct selling / on line demos	
	Animations etc. To convince customers that there will be real product	Preliminary module & option list	Training material, limited contents
	Material fo Demo	Price list version 1	Manuals, limited content
	Coming soon info for www pages, Brochure	The first License model	Manual delivery / installation
Level 3 <i>Mass distribution</i>	WWW pages & material for uploading	Price list (complete)	Training material, full content
	Youtube videos	Try me! version available	Known bugs
	Product launching	Sales module chart & option list	End user license agreement
	White paper / Concept description	Order forms	Manuals full content
	Market & competitor analysis	Sales argumentation	License
	What's new /Data sheets		Service operation model in production

Productization levels, processes and tasks part 1, (Yrjönkoski, 2018)

Appendix 6: SaaS Productization levels, processes and tasks part 2

Processes			
Productization levels	Product	Invoicing	End of usage
Level 1 <i>Proof of concept</i>	Pilot / test product (no installation material etc.)	Case by case/ Manual	Manual process for deleting, storing data, deleting user right / passwords
	3 party licenses case by case		
	Features / functionality, listen to customers feedback		
	The best man in the town support		
Level 2 <i>Individual sales cases, customers from 1st to 10th</i>	Delivery ready product to fulfill the first customer's needs	At first case by case/ manual, later (after several customers) semiautomated	Manual process for deleting, storing data, deleting user right / passwords
	Installation software	Invoicing process exists for new products	
	Better product / market fit		
	Manual product updates		
	Preliminary Technical module chart & option list		
Level 3 <i>Mass distribution</i>	Product ready for mass distribution	Automated	Automated process for deleting, storing data, deleting user right / passwords
	Customer evaluated market / product fit	Monthly invoicing, fixed prices & modules	
	Technical module chart & option list		
	Product version management		
	Automated installation software		
	Product update process		

Productization levels, processes and tasks part 2, (Yrjönkoski, 2018)

Appendix 7: Interview Results

Topics	Results
Cloud business model	• Development towards cloud technology is market-driven and is becoming dominant • Product-based business models are scalable and offer higher revenue potential • Software industry is dynamic and requires continuous delivery of innovation to customers • Existing customer base is a valuable resource
Transformation challenges	• Changing the revenue model bears risk of a short-term revenue gap • Cloud development requires new software development resources • Purchasing behavior of customers has changed from buying many licenses upfront to incrementally increasing the number of users after testing • Project business requires skill changes, for example towards API development and scripting
Financial activities	• Cloud business model requires shift to subscription revenue model • Risk of revenue gap in the transition phase from on-premises to cloud as well as from project to product • Costs for resource acquisition are high and thus bear high risk • Transformation of business model takes several years • SaaS startups are equipped with high amount of venture capital that allows them to develop their products for several years without requiring to become profitable • This shows the associated risk the transformation is facing
Productization	• IT service companies can detect weaknesses of software vendors to find an own niche • Differentiation with simple products that are offered by competition is hard • Simply reusing features from old project has not proven to be successful • Still, projects are a valuable input for product ideas • Finding customers with similar requirements for customizing could also be a part of productization as the same customizing efforts can be sold as a product • Customer-centric development is necessary for success
Product Discovery	• Working backwards from the customer is a process where a press release and an FAQ document are created as written narratives to discuss the product ideas • Lean Startup and Business Model Canvas are frameworks that can be used for product development • There is not one single method that is perfect, but every company has to find its own process framework • The key to success is to learn from failures and to discover quickly which products are not worth to be built at scale
Advantages of the platform business	• Access to customer bases of other partner organization in the value creation network of the software vendor • Access to know-how and products of other partner organizations and the software vendor which complements the offering of the IT service company • Opportunity to create a unique value proposition within the platform • Reusage of previously developed elements allows fast customizing and installation of SaaS products among different projects
Business Model Transformation	• Consider the product business as an internal startup and learn from its mistakes • Establish the product business parallelly to the existing business model and finance it through the project business • Acquisition and focus of resources as soon as a validated product idea is generated • Advantage compared to startups due to the existing customer base