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Determine a company's Software as a Service potential

The development of a perspicuous investment analysis model
from a venture capital perspective

Master's thesis in Management and Economics of Innovation

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Abstract

The software industry is facing significant changes, and new business models are emerging. Instead of providing traditional software, the industry focuses on providing Software as a Service rather than a software product. There is a need to investigate how these new business models can be categorised, evaluated, and analysed. Therefore, this thesis aims to enhance the understanding of objectively evaluating companies with the potential to transform into Software as a Service. The goal was reached by identifying factors that need to be analysed and which conclusions can be drawn by analysing those factors. That knowledge was used to create a robust evaluation tool that can align investment decision-making processes with investment strategies focusing on investing in potential Software as a Service companies, and was performed using an iterative process consisting of three steps: data collection, model visualisation, and validation. Data was gathered through mapping, a workshop, and two rounds of interviews. The data was used to develop models that were validated in the workshop and the interview rounds. Several factors were identified as critical to evaluate when searching for companies with Software as a Service potential. Many of those factors affecting the Software as a Service potential were subjective and challenging to evaluate. Therefore, a more in-depth analysis was made of these factors. The factors were divided into six comparison areas: product strategy, revenue strategy, distribution, service and implementation, market, and organisation. A model was developed to analyse each comparison area systematically by dividing the areas into comparison metrics. The comparison metrics facilitates an objective analysis. The model created enables the user first to collect the information, visualise it in the model, and then get a comprehensive summary of the information, guiding an investment decision. The separation of tasks prevents the user from getting influenced by one factor before information about all necessary factors is gathered, improving objectivity. When a company's analysis is visualised in the model, an indication is given of the company's Software as a Service potential.

Keywords: Software as a Service (SaaS), Investment analysis, Investment decision, Venture capital firm, Objectivity

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1

Introduction

The origin of the software industry is in the early 1950s. At that time, software did not exist as a separate product; it was always integrated into hardware. The industry grew when IBM in 1969 started to offer software and hardware as separate parts. From that point, many companies began to allocate resources to develop software. One characteristic of software products is that they, due to being digital, can be reproduced with almost no variable costs and without affecting quality. In addition, software can relatively easily be adapted into different packages and versions to fit different customer needs (Buxmann, Diefenbach, & Hess, 2012).

O'Grady (2014) highlights that the software industry is changing, and the term "software company" may change with it. Mäkilä, Järvi, Rönkkö, and Nissilä (2010) agree and argue that the industry is facing significant change which challenges traditional boundaries. Mainly, the industry focus on providing services instead of software products. As new software businesses are introduced, such as "Software as a Service" (SaaS) and open source, the traditional definition is becoming invalid (Mäkilä et al., 2010). In the past, software was distributed physically through, for instance, CD-ROM or floppy disk (O'Grady, 2014). Back then, the software business operated similarly to a traditional manufacturing company; they produced software and then distributed it to their customers to use in their own environment. As the industry changes, new business models and new ways of distributing software increase the competitive environment for traditional software companies. Dubey and Wagle (2007), at McKinsey and Company, predicted that SaaS companies would threaten traditional software companies as SaaS companies' profit margins would rise quickly with increased scale.

What differentiates SaaS companies from traditional software companies is the way they sell and distribute their software. Ju, Wang, Fu, Wu, and Lin (2010) highlight that since SaaS are delivered via the cloud, it is easy to install, require no high upfront costs, and enable the customers to change provider easily. Furthermore, SaaS is standardised and does not require complex infrastructure, making it easy to scale. All these differences that SaaS offers are changing the software industry and influence all software companies, from their organisational structure to financial reporting (Ju et al., 2010).

As new business models emerge, the software industry is changing. Mäkilä et al. (2010) argue that when new ways of distributing, developing, and selling software emerge, it complicates the process to categorise, evaluate and analyse software companies. Consequently, resulting in problems within the empirical research of the software area. Since the number of SaaS companies is increasing, there is a need to investigate how these companies can be categorised, evaluated, and analysed.

As awareness grows about the potential of SaaS, venture capital firms are showing an increased interest in companies offering SaaS (Dubey & Wagle, 2007). It is essential for venture capital firms to categorise, evaluate, and analyse SaaS companies effectively to make objective decisions aligned with their investment strategy. With our interest in this subject, we identified a venture capital firm investing in SaaS companies, and they were experiencing similar problems as described above. Therefore, it was a suitable company to investigate and expand our understanding of the problem area, identify challenges and potential areas of improvement.

1.1 The case

This thesis motive is to research the problems related to the changes in the software industry as business models connected to SaaS emerge. It was valuable to collaborate with a company with first-hand experiences of this problem area in the research phase, and we identified a company that agreed to share its experiences. However, they want to stay anonymous and are hereafter referred to as Company X. This section describes Company X's organisation, and the task is further explained using the explicit problems expressed by Company X.

1.1.1 The company

Company X is a group investing in entrepreneurial companies offering software solutions and niche IT services within business-critical areas across several industries. They are a start-up that aims to invest and actively develop these companies. In addition to the invested capital, they contribute with expertise and support in certain areas, focusing on helping them develop their business. Company X was established when a business opportunity was identified within the software industry. They discovered it is a plethora of promising entrepreneurs in small and medium-sized software companies with SaaS potential. Utilising this opportunity was the beginning of Company X, where the focus is to invest in entrepreneurs and letting them have self-governance. Additionally, synergies can be achieved, such as competence and resource sharing, by gathering many software companies into a group.

Company X is currently a small organisation with six employees but is in an expansive phase. They have a flat hierarchy structure, and all employees are part of the decision-making process whether to invest in a target company or not.

1.1.2 Problem formulation

A vital part of Company X's work is screening potential target companies and decide whether they are interested to invest or not. They work with a one-pager to collect necessary data to create a first perception of the investment's potential. In the second stage, they perform a more in-depth analysis and evaluation, a complex process. At this stage, a question battery is sent to the target company to gather all the necessary information to make an informed investment decision.

When Company X decides upon whether to invest in a particular company or not, they have pre-defined requirements that the target company needs to fulfil. Some requirements are non-negotiable, and some requirements can change depending on the situation and how well the company performs in other areas. Due to the "depends on"-situation, the evaluation process becomes more complicated since every analysis is specific to that particular company. Additionally, even though a target company may be an attractive investment, it is essential for Company X to only invest in companies that are a good fit for them, their investment strategy, and their current holdings. Therefore, it is challenging for the employees to make an objective decision that takes into account both if it is an attractive investment and if it is a good fit for Company X. This is in many aspects a subjective opinion that may differ between employees. Therefore, there is a need to find an objective way for all employees to evaluate target companies similarly and find companies aligned with Company X's strategy.

Within research, SaaS companies are an interesting subject. However, there is a lack of detailed research on how venture capital firms investing in SaaS companies evaluate target companies objectively. This thesis sets out to fill this gap.

1.2 Aim and research questions

The thesis aims to enhance the understanding of how to objectively evaluate software companies and which factors need to be analysed to understand if a software company can be transformed into a SaaS company. The intention is that the enhanced understanding will assist in creating a practical model for venture capital firms, usable in their investment process. The goal is to create a robust evaluation model aligning an investment decision-making process with investment strategies focusing on investing in companies with SaaS potential. The goal is that the decision-making process will achieve a higher level of objectivity to reach a consensus internally about a decision.

Therefore, the model should enable analysis and evaluation of SaaS companies and communicate the results to reach consensus. The model should enable assessment based on the investment strategy of a venture capital firm. This objective results in one research question and two implementation missions. The implementation missions will be based on the understanding gained from answering the research question.

Research question:

1. What attributes of software companies are essential to analyse when investing in companies with SaaS potential?

Implementation missions:

1. Create an investment analysis model to guide venture capital firms to determine a company's SaaS potential.
2. Develop a model to use for communication of a decision in a perspicuous way.

1.3 Delimitations

To be able to provide in-depth research, some limitations are necessary. The limitations highlight what this investigation does not cover.

- First, since this study is conducted in collaboration with one company, Company X, the data gathered to create the model will be based on their insights.
- Second, when analysing business models, it is recognised that there are uncountable numbers of business models. Therefore, the model should be used with precaution when applied to other types of business than SaaS companies.
- Lastly, as the implementation mission of this research is to create a model to enable making more objective investment decisions, it will consequently not focus on the later stages of the investment process.

Further, the research will be focused on the in-depth evaluation of the investment process, and therefore, not take into account the initial screening process.

2

Theory

In the following chapter, we present all relevant theory upon which this thesis is based. The purpose of presenting selected theories is to give the reader an extensive foundation to understand the research topic. The theory is divided into three parts: business models and characteristic elements of software companies, factors, and analysing soft metrics.

Business models and characteristic of software companies' are included to deepen the knowledge about business models for software companies developed in previous research. The section describes which elements two earlier research papers analyse when assessing software companies. This research is used to develop a framework for evaluating SaaS companies.

The following section defines several factors that are important to consider when analysing SaaS companies. These factors are used to develop the model described in the implementation missions. It is essential to know these definitions to understand the model and why each factor is included.

Analysis of soft metrics is included to highlight the complexity of analysing a company's soft metrics and how it differs from analysing hard metrics. This complexity is essential to have in mind since many of the identified factors require a more subjective valuation, common for soft metrics.

2.1 Business models and characteristic elements for software companies

Over the years, researchers have come up with different meanings to the concept of Business models (Osterwalder, Pigneur, & Tucci, 2005). According to Osterwalder et al. (2005), it is due to authors disagreeing about the meaning of a Business Model. Different authors have tried to clarify the concept Business Model. Osterwalder et al. (2005) define the concept using eight dimensions: Value Proposition, Target Customers, Distribution Channels, Customer Relationships, Value Configuration, Capability, Partnership, Cost Structure, and Revenue Model. Later, Gassmann, Frankenberger, and Csik (2013) use a different definition to define the concept, using four broad dimensions: Who, What, How, and Value. In an attempt to summarise,

2. Theory

Zott, Amit, and Massa (2011), reviewed the concept Business model, its definition, and what it is used for. They concluded that a business model differs depending on the context in which it is used and thus has no single definition. A business model also seems to have multiple purposes, being (1) a unit for analysis, (2) explaining how a firm does business, (3) seeks to explain how value is captured and how it is created (Zott et al., 2011).

Much like with the general concept of business models, there is no single definition of business models for software companies. An early structure was defined using four factors: Product Strategy, Distribution Model, Revenue Logic, and Service and Implementation (Rajala, Rossi, & Tuunainen, 2003). The structure was later developed by (Schief & Buxmann, 2012) into an extensive framework with five factors and four elements under each factor. The factors were Strategy, Revenue, Upstream, Downstream, and Usage. The business model is presented in Figure 2.1 where all elements are listed. Several options for each element are suggested by the authors and included in Figure 2.1 (Schief & Buxmann, 2012).

Strategy													
Investment Horizon	1	Subsistence Model		Income Model		Growth Model		Speculative Model		Social Model		Cross Finance	
Unique Selling Proposition	n	Quality		Features		Innovation Leadership		Efficiency		Intimate Cust. Relationship	Network Leverage	One Stop Shopping	
Product Portfolio	n	Hardware Control		System Software		Middleware / Database		Application Software		Mobile & Web Applications		Softw. oriented Services	
Value Chain Strategy	n	Make				Buy				Ally			
Revenue													
License Model	n	Sell Rights		Sell Right of License Usage		Freeware		Open Source (w/o inheritance)		Viral Open Source			
Pricing Model	n	Usage Based						Usage Independent					
Sales Volumes	1	Low				Medium				High			
Operating Margins	1	Low				Medium				High			
Upstream													
Technical Platform	n	Java	C	C++	C#	PHP	Python	(Visual) Basic	Objective-C	Perl	JavaScript	Others	
Principles	n	SOA		Cloud Computing	Lean & Scrum	Multi-Tenancy	Mobile	Security	Web Services	Web 2.0	Real-time		
Localization	n	Local			AMERICAS				EMEA			APJ	
Degree of Standardization	1	Individual Production				Batch Production				Bulk Production			
Downstream													
Channel	n	Sales Agents			Retail		Online		Telesales		Events		
Target Industries	n	Agri., Forestry, And Fishing		Mining	Construction	Manufacturing	Trans/Comm/Elect/Gas/Sanitary	Trade	Finance/Insurance/Real Estate	Services	Public Administration		
Target Customer Size	n	Private Individuals			Small Organizations			Medium Organisations			Large Organisations		
Target Customer Type	1	User						Developer					
Usage													
Operating Model	n	On Premise						On Demand					
Support Model	1	Standard Support				Few Support Options				Customer Specific Support			
Maintenance Model (release frequency)	1	Weekly		Monthly		Quarterly		Biyearly		Yearly			
Replacement Strategy (avail. releases at a time)	1	One Release				Few Releases				Many Releases			

Figure 2.1: *Business model for software companies by Schief and Buxmann, 2012*

The factors in the frameworks of Rajala et al. (2003) and Schief and Buxmann (2012) are similar but expressed in different words or structure. The factors are presented more closely in the following sections, below the heading named after the factors presented by both authors.

2.1.1 Product strategy and strategy

Product strategy, presented by Rajala et al. (2003), refers to what strategy a company chooses when constructing its product and service proposition. It also describes how the development of the product is done. Different product strategies are; customised products, product platforms, uniform core products, modular product family, and standardised online services. The examples go from customer-specific to standardised in falling order (Rajala et al., 2003). The strategy described by Schief and Buxmann (2012) differs from Rajala et al. (2003)'s product strategy in that the authors, in addition to the product portfolio, include: investment decisions, unique selling point, and value chain strategy. Rajala et al. (2003) do not explicitly mention these elements. Instead, they include the development strategy of the product.

2.1.2 Distribution model and downstream

The factors distribution model and downstream are described similarly with keywords like market, customers, and sales channels. The focus is on identifying a profitable market, the right customers, and reaching those customers through an effective sales channel (Rajala et al., 2003; Schief & Buxmann, 2012). The distribution model can be centralised or decentralised. An example of centralised distribution is direct sales, and examples of increasingly decentralised distribution methods are; reseller or agent model, OEM model, dealer model, and partner network (Rajala et al., 2003). There are multiple options on how to target a customer. Schief and Buxmann (2012) suggest that target customers should be targeted based on customer type. One way to classify customers to software companies is users or developers. Another alternative is private customers or businesses dividing the latter into different business sizes (Schief & Buxmann, 2012).

2.1.3 Revenue logic and revenue

Revenue logic and revenue both focus on how a company generates revenue and profit (Rajala et al., 2003; Schief & Buxmann, 2012). Schief and Buxmann (2012) focus on different strategies for generating revenue, how to license out and price the software, and connects that to the sales volume. The source of the revenue needs to be taken into account in a business model according to Rajala et al. (2003). Different revenue models are: effort-, cost- or value-based pricing, license sales and royalties, revenue sharing, hybrid models, loss-leader pricing, and other models like media model (Rajala et al., 2003). Costs are approached indirectly by focusing on the margin that each product generates (Rajala et al., 2003; Schief & Buxmann, 2012). Comparing the fixed costs with the marginal costs can often be connected to what type of product is sold. For example, information-intensive products often have high fixed costs, in forms of competence and development, and low marginal

costs (Rajala et al., 2003).

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2.1.4 Service, implementation, and usage

Service, implementation, and usage can be summed up as what happens after the software is sold to a customer. The implementation can be done either on the premises or through the cloud. Included in service are support and maintenance, which can range from being more or less frequent and customer-specific. Depending on how standardised versus tailored the software needs to be, different solutions are preferable. Ranging from standardised to tailored solutions, some examples of how service and implementation are done are: self-service, online service, software deployment, system integration projects, and IT consulting and customer specific system works (Rajala et al., 2003; Schief & Buxmann, 2012).

2.2 Software as a Service

During the last couple of years, it has become more common for software vendors to change their software business model into delivering the software as a service to their customers, Software as a Service (Stuckenberg, Fieft, & Loser, 2011; Ju et al., 2010). SaaS buyers subscribe to an ongoing service, which provides software compared to buying a perpetual software license. That service is paid for through recurring fees (Ju et al., 2010).

Dubey and Wagle (2007) describe SaaS as software delivered and accessed online. SaaS differs compared with traditional software offerings. SaaS vendors provide software from their own data centres where the software is hosted. Further, the vendors are responsible for delivering maintenance, support and upgrades. As a result, the responsibilities described are transferred from the customers to the vendors (Ju et al., 2010). A SaaS model is, according to Ju et al. (2010), generally characterised by a number of areas:

- The software is accessed through the web.
- The software is hosted and managed by the vendor instead of being managed by the customer's internal IT department.
- There are usually no high up-front costs; the customer is instead, paying a recurring fee.
- The software is highly standardised, and the customisation is minimised.
- The vendor exclusively performs upgrades.

This change has challenged the industry structure and put pressure on existing business models. Companies are drawn between using SaaS or traditional software business models (Stuckenberg et al., 2011). When having a SaaS, the vendor can share one software with multiples companies in a cost-effective way (Dubey & Wagle, 2007). Many customers prefer the new way of getting software delivered since they do not have to pay any expensive up-front costs or go through expensive and time-consuming upgrades. Additionally, the customers have an advantageous position in the relationship with the software supplier since they are paying a monthly fee, and if they are not satisfied with the software, they can easily change to another vendor (Dubey & Wagle, 2007).

Stuckenberg et al. (2011) summarise the differences into three main areas: service property, deployment model, and pricing model. The first; service property is that SaaS creates a continuous and ongoing relationship between the customer and vendor. The second difference, the deployment model, is that the vendor retains the responsibility of the software in terms of operating and maintaining it, which reduces the customers' commitment. Further, the software is accessed through web browsers. The last difference, the pricing model, is the way the customer pays for the software. The customer pays for the usage, and the subscription fee includes support and maintenance.

2.3 Factors

In the following section, the relevant factors that are introduced in this thesis are described.

2.3.1 Key performance indicators

Key performance indicators (KPI) are quantifiable measures used to evaluate a company's performance. There are several KPIs to choose between when evaluating companies. However, the suitability of each measure depends on the type of company and which industry it operates within. One type of KPI often used for evaluating companies within various industries is financial measures, focusing on revenue and profit margin. KPIs can be used to compare companies within the same market and understand changes for a specific company over a long-term time horizon (Twin,

2020).

2.3.2 Product offering

The variety of products offered to customers is something businesses have deliberated over decades. To which extent the product offering should be standardised or customised is related to differences in revenues and costs for the different options (Dobson & Yano, 2002). What ultimately decides a company's product offering is who the potential customer is, the demand of that customer, and the customer's willingness to pay (Evans & Webster, 2007). Generally, more choices result in reaching more customers, which potentially generates more revenue. Nevertheless, the revenue needs to be weighed against the costs of producing the products, where a wider variety requires more resources than a more restricted offering. This trade-off between revenue and cost is altered by technological development. Software companies do often not encounter the same amount of increase in costs with increased variety since production and distribution are not limited to the same extent as in manufacturing firms. It is further confirmed by the "long tail theory, which states that internet-related innovations can serve narrow customer niches with customised products more cheaply. However, aggregation strategies and creating economies of scale with standardised products are also becoming cheaper with internet innovations (Evans & Webster, 2007).

2.3.3 Add-ons and modularity

Within software, modularity is used to describe the software design and how the code is structured. The way the code is structured has significant impacts on the quality of the code and its maintainability, reusability, and understandability (Xiang, Pan, Jiang, Zhu, & Li, 2019). Software modularity can also be used to supply different parts of the software product to a customer. Bråtegren (n.d.) states that developing products with add-ons and modules is the same for software companies as for manufacturing companies. Modules can be developed to satisfy different customer needs but use the same standardised interface. Modularity enables quicker development of new software functions since the new code can be incorporated into the old interface and does not need to be intertwined in a new complex code. The keywords for add-ons and modularity are according to (Bråtegren, n.d.) fast and flexible. In this thesis, using add-ons and modularity will refer to Bråtegren (n.d.)'s definition of offering different functionalities to customers to satisfy their exact needs.

2.3.4 Development responsibility

Mital, Desai, Subramanian, and Mital (2008) define the process of product development as "conceptualising a product, designing, producing, and selling it". It is essential to know which features are valued by the customer to succeed with a product development process, develop that product speedily and with high quality and low costs, and maximise profits (Mital et al., 2008).

The development process of software products differs in some ways from the development of traditional products. Digital transformation has resulted in a need to

increase the speed of the development process, altering the whole approach. Developers of software today often need to design a product without input from users, creating uncertainty regarding the design requirements. It creates an additional challenge for software developers (Langer, 2016). To tackle this challenge, companies have developed new ways of working. Working according to an agile approach is beneficial when developing software (Kelly, 2008). Digital transformation, implementing a more agile process, and competitive knowledge abroad has resulted in virtual development teams and development outsourcing (Langer, 2016). Furthermore, new ways of developing software are emerging, like open-source, where the source code is publicly available to alter and develop (Wikipedia, n.d.).

2.3.5 Horizontal niche

Companies having a horizontal niche specialise in a product, system, or function. A product with a horizontal niche can be used for a specific purpose in a business but is not limited to a specific industry. The focus is to sell a product with the right features to perform well in a single function and be versatile across different industries. A limitation of software with horizontal niches is that they lack the holistic perspective of a company's business, which vertical niched software often provides (Omile, 2020). The advantage of horizontally niched products is that one can sell the product to many different industries, potentially earning higher revenue (Khurana, 2018).

2.3.6 Revenue streams

Revenue streams are the different sources that generate revenue for a business. It includes earned revenue from products and services sold. Products and services can be priced in different ways. For example, a product can be charged with a one-time fee or rented out, then charged over a period of time. Revenue streams are often categorised according to the types of pricing mechanisms that exist. There are some common types of pricing mechanisms, which are used to categorise revenue streams. Four types usually mentioned are transaction-based revenue, project revenue, recurring revenue, and service revenue. Transaction-based revenue is generated through one-time payments when goods are sold. Project revenue refers to payments from one-time projects. Recurring revenue is generated on an ongoing basis through continuing services, subscription fees. Service revenue refers to payments made by the customer for services, and it is paid based on the number of hours the service is required. The different revenue streams enable different ways to predict the future generated revenue. In a business with recurring revenue, the cash inflow is the most predictable and remains stable within the existing customer base. Transaction-based and service revenue is harder to foresee since the customers' demand tends to change over time. However, project revenue is the most difficult to predict since it is very volatile due to its dependence on customer relationships. Therefore, some revenue streams are more desired to predict future generated revenue (CFI, n.d.).

2.3.7 Recurring revenue

Recurring revenue refers to the revenue that a company generates that is expected to proceed in the future. Instead of having one-time sales, periodic sales create a continuous and constant revenue stream. It is a model that companies usually desire as it creates stability and predictability (Liberto, 2020; CFI, n.d.). Recurring revenue is not guaranteed to continue forever but creates a good foundation since it lowers the risk of drastic turns in revenue. One way to generate recurring revenue is to have automatically renewable subscriptions, which refers to the service being delivered until it is cancelled. Companies with recurring revenue are often valued higher by investors since their forecasts are more reliable than companies with non-recurring fees (Liberto, 2020). CFI (n.d.) summarises the possible revenue streams as; renting or leasing, subscription fees, advertising fees, and licensing.

2.3.8 Sales focus

There are two different approaches to make sure a company has customers: customer retention or customer acquisitions. Customer retention refers to when companies focus on the already existing customer and are allocating resources to create long-term value for those customers. Customer acquisition is allocating resources to finding new customers and making sure they become paying customers. A company does not necessarily need to focus on one of these areas since they are not mutually exclusive. However, they both require resources, and therefore companies need to decide to what extent they want to focus on these areas (Arnold, Fang, & Palmatier, 2011).

The company's focus on either developing new relationships or deepening the existing ones can potentially affect the company's performance. Focusing on customer retention and deepening the relationship with the existing customers can improve the company's performance in the short term. However, a consequence may be that the customer base becomes more concentrated, which is a potential issue (Arnold et al., 2011).

2.3.9 Customer concentration

The customer concentration metric visualises how a company's total revenue is distributed among the customers. A low concentration refers to a large customer base, where all the customers are purchasing small volumes (Marin, n.d.). If the concentration is high, a smaller number of customers are making bigger purchases, leading to more significant loss if an account is lost (Grant, 2016). When referring to high customer concentration, the rule of thumb is that a single customer constitutes more than 10 per cent of the total sales or the five largest customer generates 25 per cent of the revenue (Marin, n.d.).

The level of preferred customer concentration is different depending on the industry; some industries typically have lower concentrations; meanwhile, others are more likely to have larger customers constituting a large proportion of the company's sales (Marin, n.d.). Depending on the industry and company, there are both benefits and

disadvantages with having low or high customer concentration. Generally, high concentration speaks in favour of developing a long-term relationship with the customers due to fewer customers. The long-term relationship benefits both the company and the customer. The company can get more information from the customer and develop more suitable solutions, and the customer can get more customised offerings. However, high concentration also creates a risk since the company is dependent on its customers, and losing one may significantly impact the revenue and profit (Marin, n.d.).

2.3.10 Customer acquisition cost

When talking about customer concentration, it is highly relevant to think about customer acquisition cost (CAC), which is the total costs of acquiring a new customer. If marketing and sales are efficient, it often results in a low CAC. It is commonly acknowledged in the business environment that acquiring a new customer is connected to higher costs than extending an existing customer. For investors, the CAC is interesting to consider if it is surprisingly high or low. CAC gives insights into how to plan for the future, make budgets, and allocate money. The CAC is often higher in a highly competitive environment since customers have various companies to choose between (Kenton, 2021).

2.3.11 Implementation

When implementing software, there are two main ways to approach it, on-premises or through the cloud (Rajala et al., 2003; Schief & Buxmann, 2012). The first refers to having everything in-house to install the software on the computer and access it locally. Meanwhile, for the cloud solution, everything is hosted by a third-party provider. What differentiates cloud solutions is that the computing services are offered outside the firewall and delivered through the web browser. Cloud solutions are beneficial as it does not require the same amount of up-front costs, it is easier to do product upgrades, it reduces the need for internal IT support, and it is easy to access the software (Fisher, 2018; Wei & Blake, 2010). When software is centrally hosted, in other terms through the cloud, the users do not need to have licensed ownership, instead, they pay for the right to use it (Fisher, 2018).

On-premises solutions require servers on-site, system administration labour, and other infrastructure. Further, on-premises software is usually not maintained continuously, resulting in outdated software. However, on-premises are less exposed to security threats, less affected by price increases, and the vendor does not have the same responsibility after the installation (Fisher, 2018).

2.3.12 Service

After the customer has gained access to the software, the services delivered can take many forms, but usually in the form of support and maintenance. These can be both standardised or customised and be provided more or less frequently (Rajala et al., 2003). Maintenance is an integral part of the after services that the vendor can provide to its users. It refers to all modifications done to the software

after the software has been delivered. It can take the form of correcting faults, adapt the software or improve it. Since software is part of a continuously changing environment, the software is never finished; there is always a need to meet new requirements (Grubb & Takang, 2003).

According to Wei and Blake (2010) customer maintenance is easier to perform when the software is delivered through the cloud since one update can be shared with all users simultaneously. Since it is impossible to upgrade all on-premises software simultaneously, all the distributed software may not have identical versions, requiring additional and varied support (Wei & Blake, 2010). Further, the location where the service is executed differs depending on how the software is distributed. The maintenance and upgrades can be delivered remotely when the software is distributed through the cloud. However, an on-premises solution may require on-premises maintenance.

After services can differ in more ways than delivery, they can also be charged differently. If the vendor is offering SaaS, the maintenance, upgrades, and support are all included in the subscription fee (Ju et al., 2010). SaaS's charging model differs significantly from the traditional software model where the software is licensed, and the business needs to operate and manage the software themselves. However, in addition to the licensing fee, the customer can pay a recurring fee for additional service, for example, maintenance and support. The additional maintenance fee is then of a recurring nature. However, within the licensing model, it is more common to have the responsibility of after services internally, which is not the case for SaaS, where the vendor provides everything related to the software (Mäkilä et al., 2010).

2.3.13 Vertical niche

Companies within a vertical niche are specialised to serve that specific market's need and not a broader market. The niche consists of a group of customers and companies that are all connected to that specific niche. The companies active in a vertical market are offering specialised products to that market (Young, 2020). Therefore, companies within vertical niches act as specialists and usually offer better products for that market since they can create products based on the user experience (Khurana, 2018).

Acting within a niche usually create higher entry barriers for new competitors, and it can potentially lead to higher profits since the company is focusing on a smaller customer base. Further, companies can often create a closer relationship with the customer, offer more specialised products and get more targeted insights. More specialised products allow for higher prices, according to Young (2020). Companies within vertical niches become experts and therefore have deep knowledge of market trends and regulations (Young, 2020). Grant (2016) argues that market leaders often focus on the mass market, which creates an opportunity for new firms to create niches within the market where the market leaders will not interfere (Young, 2020).

2.3.14 Market share

Market share represents the percentage of total sales that a specific company generates within a market. It gives insight into a company's size in comparison to the total market. For investors, the metric can be used to observe how the market shares fluctuate, as it reveals the competitiveness of the company's products. Further, market shares can indicate how a company maintains market shares if the total market grows. If a company increases its market shares, it is an indication that they are growing their revenue more rapidly than its competitors. Increasing market shares in a mature industry with low growth is highly difficult. Further, it is crucial to understand that in an industry where the market is growing, a company can still increase its sales even if its market shares decrease (Hayes, 2021b).

2.3.15 Competitors

What determines the competitiveness and the profitability level within an industry is the rivalry between companies. Competition can also be created by companies having substitute products. However, the internal rivalry is more evident than rivalry by substitutions. Internal rivalry can have different outcomes on the pricing of the product depending on the competitive landscape. Therefore, it is important to consider both how many competitors there are and how large market shares the most prominent players have (Grant, 2016).

Within the software industry, especially amongst SaaS companies, it is difficult to compete with large companies (Aley, 2018). The competitive advantages that software companies possess (Aley, 2018) can be explained by both the nature of their business (Aley, 2018) and the fact that they experience increasing returns (Arthur, 1996). Aley (2018) explains that software companies today gather a considerable amount of data that they can use to elevate their businesses further. Arthur (1996) further adds that increasing returns is why large software companies experience increasing competitive advantages. Increasing returns means that companies that are ahead, get even further ahead (Arthur, 1996).

2.3.16 Barriers to entry

Entry barriers can delay or prevent new companies from entering the market; in other terms, they limit the competition in that specific market. The entry barriers protect incumbent companies and improve their possibilities to generate profit and retain market shares. If a company wishes to enter a new market, it will face several barriers, which differs depending on the industry since each industry has a unique collection of barriers (Hayes, 2021a). Grant (2016) mentions possible barriers to entry as high up-front costs, which is the capital required to get established in the market, governmental and legal barriers such as patents, regulations, brand loyalty, high switching costs, and know-how (Hayes, 2021a).

2.3.17 Marketing strategy

Having a well-developed marketing strategy relates to how well a company succeeds in creating a game plan for reaching the potential customer and getting them to buy the product or service. The marketing strategy is focused on communicating the company's value proposition to potential customers. Further, the market strategy should have a long-term perspective that communicates the company's competitive advantage over the competitors. Independent of how the message is communicated, for example, on print, digitally, to the mass market, the assets can be valued based on how effectively the strategy delivers the message (Barone, 2021).

2.3.18 Sales strategy

A sales strategy is a plan for selling products or services. It focuses on differentiating the company's offering from competitors' offers to reach qualified buyers. The strategy includes clear objectives, for example, KPIs, sales processes and methodologies, product positioning, and competitive analysis. Furthermore, a sales strategy should include goals for the sales organisation to work towards and monitor progress to assure that quotas are met (Riesterer, 2019).

When transiting to software-based products from traditional products, some changes in sales strategy can be observed, especially when software is sold as a service. Chung (2021), this includes selling directly to customers instead of through partnerships. The changes demand a restructuring of the sales department, where a new skill set is demanded, including working closely with customers and having deep business knowledge (Chung, 2021).

2.3.19 Knowledge

A commonly growing trend is the knowledge-based economy. Today knowledge is a significant strategic asset. Knowledge is a resource that affects and shapes the business. It creates high value since it is unique to each specific company, and knowledge differentiates one company from another. However, knowledge is connected to individuals and can easily be lost if an employee leaves (Invest Northern Ireland, n.d.).

Even though today's economy is knowledge-based, knowledge is still a relatively scarce resource since the workers' knowledge, expertise, and skills are limited. To achieve long-term competitive advantages in a knowledge-intensive company is highly important to sustain the expertise within the organisation (Horwitz, Heng, & Quazi, 2003).

2.3.20 Dependence

When measuring the operational risk of a business, it is common to look at what different operations depend. An operation is most often dependent on either people or processes; the first is called people dependent, and the latter process dependent. There are advantages and disadvantages to both. People-dependent businesses,

where an operation is dependent on a specific person's knowledge, are often more flexible. The main disadvantage with people-dependent businesses is the risk of losing the knowledge that a person has about a process if that person leaves without passing their knowledge on to the next person. Process-dependent businesses, where an operation is done following a pre-designed and standardised task, can be hard to achieve, but if succeeded, anyone can perform the tasks by following a list of steps. The main disadvantage of process dependency is that it is less flexible, has little room for employee input, and resistance to change has been observed. The optimal level of how much a business is dependent on either people, processes, or a mix of them varies between different types of businesses (MassAnalytics, n.d.).

2.3.21 Maturity

An industry evolves during its lifetime, and it is referred to as an industry life cycle. The life cycle is usually divided into four stages: introduction, growth, maturity, and decline. When a company reaches the maturity stage, the industry's market has reached a saturation point. It results in the focus being moved from increasing sales to create more efficient processes (Grant, 2016). Further, the markets are more predictable, and companies have well-established connections to the customers and other stakeholders (Audretsch & Feldman, 1996). A mature company is usually a well-established actor within the specific industry possessing a known product and brand (Grant, 2016).

Companies within this stage are often experiencing saturated sales, leading to steady or slow revenue growth. Companies aim at keeping their market shares since the market's growth is limited (Audretsch & Feldman, 1996). Instead, the focus lies on establishing strategies to achieve good levels of profitability, often by reducing their costs as a result of making the organisation more efficient. However, mature companies often have well-established competitors, creating high competition within the industry ((Kenton, 2019).

According to Audretsch and Feldman (1996), the management, processes, and marketing routines needs to be well developed in a company at this stage. Due to growth being limited, the focus is on creating an efficient organisation, which can be in data management, efficient planning, and resource processes. Typically, mature organisations have established procedures to capture information to improve the processes and technology on an enterprise-level (Kenton, 2019).

2.4 Analysing soft metrics

Soft metrics are indicators that are not regarded as traditional "hard" measures, such as KPIs. Instead, they are measures related to a company's value and performance that can not be quantified (Fernando, 2021). Soft metrics are usually "hidden" and remain intuitive since they hardly ever can be measured (Tosic, 2017). Soft metrics are flexible to use and are intended to be adapted to the company. Therefore, there is a wide range of possible metrics, and they are not standardised, and therefore, free for the analyst to develop based on the company. The purpose of including soft

2. Theory

metrics when evaluating the characteristics of a company is that they are important to understand a company, but they do not appear on the financial statement (Fernando, 2021).

3

Method

This chapter describes the methods used in the study. The first section presents the planned design of the study. The research design was used to plan the research process and which methods are used.

After that, the applied methods are presented in the order they were used. The methods presented include the gathering of primary and secondary data. Primary data was gathered through a workshop and interviews. This section also includes how the data were analysed. Applied methods are included to demonstrate why the methods used are the most suitable approach to answer the research question.

Next, the method process is presented to enable the reader to follow the process as it was carried out. It allows the reader to replicate the process, which is vital to validate the findings further.

Lastly, reliability and validity are included to increase the trustworthiness of the study.

3.1 Research design

The research is divided into three steps; data collection, model visualisation, and validation. This process is iterated until the desired model is achieved, which is illustrated in Figure Figure 3.1.

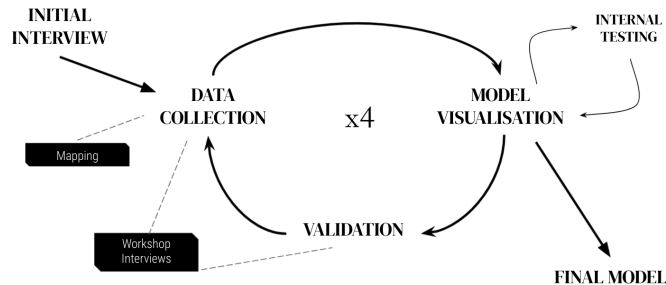


Figure 3.1: *Research design*

Initial interviews leading to data collection, model visualisation, and validation, represents each step of the iteration process resulting in a desirable model.

First, initial interviews were conducted to gather information about Company X's current investment process, its advantages, and disadvantages. It is essential to understand how an investment process is structured and how an investment model should be constructed to be valuable. Thereafter, the iteration process started with data collection, model visualisation and validation. Data collection was done through the mapping (first iteration), workshop and interviews (following iterations). The data type collected through the mapping was secondary and the data type collected through the workshop and interviews was primary. This data was used to first construct the model, and thereafter update the model according to gathered input. During each update of the model, the model was tested to detect faults and improvement potentials against theory and already gathered knowledge, represented by "internal testing" in Appendix 3.1. The model was thereafter validated in each iteration through the workshop and interviews. In total, 4 iterations was conducted, which resulted in the final model.

3.2 Applied methods

Below, we present all methods used during the study and the reason they were adopted.

3.2.1 Gathering of secondary data

Secondary data is data that has already been collected by someone else. Secondary data is valuable when needing to collect a large amount of data in a short period of time. Further advantages of using secondary data are that it is easy to access and can be collected from multiple sources. Secondary data allows researchers to draw new conclusions from previously collected data (Krishnaswami & Satyaprasad, 2010).

3.2.1.1 Mapping

The gathering of secondary data was done through mapping a selection of software companies. The mapping was done to identify different business models and factors present within the software industry. Information was gathered through the companies' websites, annual reports, and other relevant business sources. To be relevant for this study, the company needed to fulfil a few pre-specified requirements listed below.

- The company is listed on Small, Mid, or Large-cap on the Swedish stock exchange.
- The company's focus should be to sell its products to other businesses (B2B).
- The company must produce software.
- The software should be or have the potential to be sold as a separate product.
- The software should be developed and owned by the company.

The selection of companies was based on these requirements. However, since some of the requirements are subjective, interpretations were necessary during the process. The selected companies were analysed in-depth to identify the business models' factors and understand what differentiates a business model.

3.2.2 Gathering of primary data

Information about what is important in an investment process was derived from a workshop and interviews with Company X. Primary data refers to data that has not been collected previously. This data can be adapted to fit the needs of the research study (Krishnaswami & Satyaprasad, 2010). The primary data collected was qualitative, and the purpose of collecting it was to gain a deeper understanding of the behaviour, opinions, and attitude of a smaller number of people. This type of study is often more time-consuming than quantitative studies and gathering secondary data, where the focus is on gathering large amounts of data effectively (Krishnaswami & Satyaprasad, 2010). The two methods, workshop and interviews, are further explained in the following sections.

3.2.2.1 Workshop

A workshop was held with Company X to gain insights about what type of model could create value in an investment process. An aspiration was to discuss different alternatives. Therefore, a workshop was chosen as a method since it, according to Steinert (1992), is an effective way to promote discussion.

According to Steinert (1992), a workshop, when held with a smaller number of participants, allows everyone personal attention. A workshop is preferably constructed for people working together or in the same field. Workshops are helpful to spur participants to develop their ideas, which is suitable when developing new models or concepts. When constructing a workshop, planning, preparation, and implementation are factors to take into account. When planning the workshop, it is essential to consider the workshop's purpose, how information is presented, the audience and their previous knowledge. Preparation is essential, and all necessary materials and equipment needed should be arranged beforehand. Implementation has three phases: introduction, substance, and closure. During the introduction, the tone of the workshop is set, and the agenda is presented. The substance of the workshop could be made more interesting by presenting information in different ways and being enthusiastic. When closing the workshop, it is essential to summarise the content, leave time for reflection and discussion, and collect feedback from the participants. To sum up, extensive planning and preparation are essential to arrange an effective workshop implementation (Steinert, 1992).

In accordance with Steinert (1992), a plan for the workshop was set up beforehand, including several aspects to discuss. A PowerPoint was constructed with the agenda, slides that should be filled out, and other relevant information for the workshop. However, the planning left room for changes in the agenda to allow for gathering unexpected data. The workshop was performed with two employees at Company X. The workshop duration was six hours, allowing for deep discussion of all points

on the agenda and having time for unexpected discussions. Thorough notes were taken during the workshop. In addition, a meeting between the authors took place afterwards to discuss and document thoughts and impressions from the workshop.

3.2.2.2 Interviews

Interviews were conducted for three purposes.

- First, to get a deep understanding of how an investment process works.
- Second, to identify important factors to consider when making an investment decision.
- Third, to gather feedback from people with experience in investment decisions.

The goal was to perform interviews with different employees within Company X to get multiple perspectives. Interviews were held with four out of six employees; some employees were interviewed on multiple occasions. All of the interviews were held individually to avoid interviewees influencing each other (Krishnaswami & Satyaprasad, 2010). According to Krishnaswami and Satyaprasad (2010), interviews are suitable when the data gathered is about people's attitudes and opinions. If the interviews are correctly performed, a large amount of in-depth data and detailed information can be gathered. However, interviews are very time-consuming and require the interviewer to know how to design and perform them appropriately. Further, the interviewee must understand which role the interview will play in the research. That promotes the interviewee to answer the questions truthfully (Krishnaswami & Satyaprasad, 2010).

The interviews were performed with a semi-structured interview approach, implying that the interviews were conducted based on a list of pre-specified areas and questions. However, the questions were adapted to fit the situation, the interviewee, and the answers; to promote a continuous conversation. New questions were formulated during the interview to achieve the desired outcome. Semi-structured interviews are both flexible and consistent (Dawson, 2002). However, the lack of standardisation in semi-structured interviews can result in difficulties comparing answers from different interviews, leading to an inconclusive result (Saunders, Lewis, & Thornhill, 2009). It is also problematic to know to what extent the interviewee is affected by the interviewer's choice of word and formulation (Krishnaswami & Satyaprasad, 2010). Another aspect to consider is the interviewee's perception of the interviewer and vice versa (Saunders et al., 2009).

According to Gillham and Gromark (2008), the formulation of the interview questions is essential for the interview result, as the question shall be easy to understand and not deceptive for the interviewee. Since the interviews were semi-structured, the questions were open for the interviewee to interpret, but the questions were formulated with accuracy and clarity to avoid misinterpretations, as suggested by Gillham and Gromark (2008). To conduct the interviews more efficiently, they were mainly held online since Company X is located in Stockholm. Krishnaswami and

Satyaprasad (2010) argue that phone interviews, similar to online interviews, are suitable for interviewees in different geographical places.

The interviews were not recorded to avoid interviewees becoming cautious in their statements, especially when discussing potential company secrets, all per Krishnaswami and Satyaprasad (2010). Instead, thorough notes were taken during the interview. Between the interviews, discussions were held between the authors to make sure all critical information was collected and noted.

3.2.3 Data analysis

All data gathered needs to be categorised, processed and compressed to help answer the research questions. The method of processing data depends on the data gathered (Patel & Davidson, 2003). In this thesis, the data collected is qualitative.

3.2.3.1 Documentation and analysis of qualitative data

When conducting the mapping, all information gathered was documented in a shared excel document. The information was sorted based on different variables and was divided into different sheets dependent on the nature of the information. Documenting the gathered information in an excel document made it possible to get a clear overview of the data. Furthermore, it enabled easy sorting of the data based on different variables. To arrange collected data in a logical and clear order is by Kothari (2004) called tabulation, enabling data to be effectively presented and compared (Kothari, 2004). By comparing the data, correlations could be found, which contributes to the research results.

During the workshop and interviews, detailed notes were taken since the interactions were not recorded. To make sure comprehensive notes were taken, one of the authors was responsible for taking notes during each interview. The notes were documented in separate documents for each interaction which was labelled with date and name. These documents were stored online to enable both authors to access them. Both authors processed the notes after each interaction to make sure all essential parts were included. If some parts had been left out, they were added. The main goal of taking detailed notes was to enable processing the notes repeatedly during the project. It enabled the authors to use the data continuously and draw additional conclusions as they gained more knowledge of the area.

The notes were further processed to highlight the areas of interest to consider when updating the model. The insights gained from the interaction were continuously compared with the theory to confirm it or find additional ways to interpret it. If the theory could confirm the insights it were added to the model, if the insights could not be confirmed or additional ways to interpret the data came up, it was used as an input to the next interaction.

3.3 Method process

Early on, it was agreed upon with Company X that the focus would be to create value in the investment process. Therefore, the research direction would change if more value could be created differently. It has resulted in that the direction changed during the research. However, the work performed before the change of direction could not be excluded since it still provided essential insights to the thesis. Furthermore, describing the insights and decisions that resulted in the change provides additional insights and is vital to include in the thesis. The process has been complex since this thesis has been deeply intertwined with Company X, an evolving company. This section describes the process of evolvment, insights gained, and what has laid the ground for the directions taken.

Part of the process was to anchor our findings in the literature continuously. Since the aim changed during this thesis, the theory required to understand the area has also changed. Therefore, the theory section in the thesis was an ongoing process, where the theory of the new findings was added. Additionally, the reason is to enable the reader to understand the concepts put forward.

In the following sections, the process of the initial interviews and the first, second, third, and fourth iteration is presented. In between the first and second iteration, the change of direction occurred. This change is described in a section between the first and second iteration to follow a chronological order. The method process is summarised in Table 3.1. The initial idea was to perform three iterations, but an additional iteration was needed to achieve the desired model. The final model was the result of the iterations of data collection, model visualisation, and validation.

Iterations	Data collection	Model visualisation	Validation
Iteration 1	Identifying factors for SaaS companies by mapping listed software companies and scanning literature.	Creating a model based on the factors identified in the mapping and literature. <i>Model version 1</i>	Presenting the first version of the model at the workshop, to get feedback and insights.
Change of direction			
Iteration 2	Compiling all feedback and insights gained about the first version of the model from the workshop.	Creating a second version of the model based on the feedback received during the workshop. <i>Model version 2</i>	Conducted the first round of interviews, to get feedback and input.
Iteration 3	Compiling all feedback and insights gained about the model from the first round of interviews.	Creating a third version of the model based on feedback and input received at the first round of interviews. <i>Model version 3</i>	Conduct a second round of interviews, to get feedback and input.
Iteration 4	Compiling all feedback and insights gained about the model from the second round of interviews.	Creating a fourth version of the model based on feedback and input received at the second round of interviews. <i>Model version 4</i>	No additional validation was needed; the model is complete. The final model was achieved.

Table 3.1: *Summary of the method process*

3.3.1 Initial interviews

The first step was to understand Company X’s business, processes, and needs in several interviews with different employees from Company X. During these interviews, it was decided what the focus should be.

The initial idea was to create a tool that would assist venture capital companies to better understand the software businesses they invest in. Discussions resulted in that this would best be achieved by mapping software companies and their business models. The information gathered in the initial discussion laid the ground for the decision that an extensive mapping of listed software companies should be done. Company X suggested that data be gathered from listed companies, making it easier to access the information needed. The purpose of the mapping should be to identify different factors that differ between software companies and how it is affecting their business models.

Since the increased use of SaaS has changed business models, this needed to be taken into consideration. Therefore, the different business models identified would

be compared with whether or not the companies offered SaaS or were trying to transform their offers from traditional software to SaaS.

3.3.2 First iteration

In the first iteration, several listed companies were analysed to understand which factors are critical in software companies. Several factors were identified during the mapping by reading annual reports, websites, and other information from the listed software companies. According to areas in a business model, these factors were compiled and arranged and brought to the first workshop with Company X. A ranking system was created to investigate how far a company had come in offering SaaS. The idea was to understand if companies are offering SaaS or trying to transform their offers to become SaaS.

The mapping process laid the ground for the continued work of constructing a model to compare different business models with a company's SaaS ranking. The mapping process gave deep insight into different business models in software companies and which factors were important to analyse. The factors were used to construct the grounds for the workshop.

The mapping of companies and which factors had been identified was presented and discussed, during which a few new factors were identified (see Appendix A.2). The workshop aimed to rank the different factors according to relevance and importance. Furthermore, suggestions were presented on how the factors could be grouped (see Appendix 3.2) and how a SaaS ranking system could be constructed (see Appendix A.3). Company X commented that the factors identified represented what they are interested in when they assess target companies and that the factors identified in the mapping were essential to analyse when making an investment decision. However, Company X did not have any specific requirements for each factor. There were no right or wrong answers to the questions asked regarding the factors; they all depended on each other. When Company X analyse these factors, they create a complete picture of the company using all of the factors. Therefore, it was not possible to rank the factors in an easily. Ranking companies using factors would result in too much of a simplification in analysing a target company. Therefore, creating a model ranking business models and connecting it to SaaS ranking would create little value.

Product Strategy				
Customised product/solution	Product platform	Uniform core product	Modular product family	Standardized on-line service
Revenue Logic				
Effort-, cost, or value based pricing	Revenue sharing	License sales and royalties	Other: eg loss-leader pricing	Recurring Revenue
Distribution				
Distributor	OEM model	Reseller or agent model	Direct sales	
Services and Implementation				
Customer-specific system work	System integration projects	Software deployment	On-line services	

Figure 3.2: *Suggestion for grouping of factors*

A proposed grouping of factors, inspired by Rajala et al. (2003), were presented at the workshop.

Company X was very interested in the grouping of the factors made during the mapping. The reason is that the model included highly relevant factors for Company X, and they often talked about those factors. However, they did not have a straightforward way to structure those factors. The grouping and the structure of the factors realised during the mapping is presented in Figure 3.2. The suggested SaaS ranking presented were also of interest and gave inspiration for other ways to use it. A continued discussion followed about Company X's other needs, how the grouping and the SaaS ranking could create value in the investment process.

3.3.3 Change of direction

The new direction taken after the workshop was to develop a model to help Company X evaluate a target company, assess the target company's SaaS potential, and communicate the potential investments to external people of interest.

The change of direction was motivated by three aspects. First, when a target company has been internally labelled as attractive from the initial screening, Company X sends out a question battery to further assess the target company. The purpose of these questions is to gain a deeper understanding of the company and better assess the company's soft metrics. This process could be developed further to be more objective and give a more comprehensive picture of the company.

Second, a profitable investment strategy is to find companies that have not yet developed their offer to SaaS completely. However, it can be challenging to evaluate if it is possible to transform a company to offer SaaS or not. If a model can assist the investment process to align with that strategy, it would be valuable.

Third, the word "storytelling" is a word frequently used by Company X. What Company X refers to is a story explaining what Company X does, their strategy, and why they invest in a particular type of company. During the workshop, it became

clear that Company X wants to develop their storytelling further. This storytelling is important because it helps Company X motivate their investment decisions to their investors. If the investors understand the advantages with an investment they can allow Company X to offer a higher price for the shares of a company.

The idea was to create a model used during the evaluation process, from the initial screening to the in-depth evaluation considering these three aspects. However, it became clear when comparing the insights from the mapping with Company X's first screening that their initial evaluation was sufficient as an initial step. Instead, the focus hereafter was to create a model for the later stage of the evaluation process.

To summarise, it was decided to focus on creating a model assisting Company X in making their assessment of a target company more objective, evaluating its SaaS potential, and their storytelling.

3.3.4 Second iteration

After the change of direction, the iterative process initially planned was still highly relevant and therefore remained.

A model was created based on the factors gathered during the workshop, and the factors were divided into comparison areas, comparison metrics, and dimensions. During the following iterations, the model was updated and revised continuously by adding, changing, and removing areas, metrics, and dimensions.

Initially, the plan was that one model would be sufficient to satisfy all objectives; to objectively assess a company; to assess a company's SaaS potential, and the storytelling. However, the model was very information-intensive, which created the concern that information would get lost when presenting it to the audience, thus, losing the storytelling perspective. Therefore, a second model was developed that would be better suited for external use, and it would be based on the more extensive model best suited for internal use.

The next step was to test this version of the model in interviews with Company X employees per the iterative process. In these interviews, the goal was to validate the model and further identify possible improvements. The model that had been created after the workshop was presented. Interviews were held with employees in different positions to get input about the model from multiple perspectives. The first round was with two employees at Company X, who had limited knowledge about the purpose of the model. Therefore, a short introduction was given about the purpose of constructing the model. Next, the constructed model was presented more generally, and the interviewees were asked about their first impressions. After that, each comparison area of the model was discussed, and questions were asked to identify improvement potential and general thoughts. The focus was on identifying whether the model included all relevant parts in terms of comparison areas, comparison metrics, and dimensions, and further discussion was held regarding if the proper definitions were used.

During the whole process, any uncertainties about the model were noted to clarify those parts further. Many inputs and impressions were gathered regarding all aspects of the model: the design, comparison areas, comparison metrics, and dimensions. Following the input, a new version of the model was created.

3.3.5 Third iteration

The next step was to include all information gathered during the first round of interviews in the second iteration into the model. The new model was then presented in the second interview round for validation. In this round, the model was presented with one comparison area at a time, thus making the discussions more focused.

3.3.6 Fourth iteration

During the interviews, it became clear that there was a need to restructure some parts of the model, include additional factors and change some of the existing factors. The flaws identified were minor, easy to change and the overall reactions to the model were positive. Therefore, it was decided that no further iteration was needed. The model was updated based on the proposed changes from the second round of interviews, resulting in the final model.

3.4 Reliability and validity

A critical perspective was applied to the method and the data collected to reach a reliable and trustworthy result. To achieve this, it is essential to continuously evaluate the reliability of the literature and the collected data to ensure high quality throughout the process. Reliability refers to examining what is intended, and validity ensures that the examination is appropriately performed (Hallin & Helin, 2018).

When gathering secondary data, the data needed to be critically evaluated since the information may not have been updated or gathered for the same purpose as in this study, and according to Krishnaswami and Satyaprasad (2010), it is imperative to take these risks into account and assess these circumstances to minimise the effects on the investigation. The goal of gathering secondary data for this study is to understand what is essential in the business model for software companies. Therefore, the quality of the secondary data, in terms of it being current or collected for the same purpose, was not as crucial for this study.

Saunders et al. (2009) highlight the difficulties with comparing results when using semi-structured interviews. In this thesis, interviews are conducted with different employees at Company X to enable insights from multiple perspectives. Since the employees have different roles, the purpose was to gain insight based on their primary area of knowledge. The purpose is not to compare the answers; instead, use each answer separately to improve the model. Further, if interviewees give different input within the same area, an informal discussion was held afterwards to identify why the difference appeared. For example, was it because they have different opinions,

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the answers have been misinterpreted, or did the interviewees express themselves differently. If there are different opinions, a discussion of the best alternatives was held, and inputs from theory were updated.

Since Krishnaswami and Satyaprasad (2010) raise concerns about the interviewer's choice of word and formulation, extra attention was paid to ask the questions without adding any value. Furthermore, during each interview, all feedback, both positive and negative, is welcomed.

4

Results and Analysis

In this chapter, all empirical finding collected during the research is presented.

The results and analysis of the mapping are presented first, followed by the information gathered to understand investment processes and what areas influence an investment decision; "Understanding the foundation of an investment decision" creates a foundation for continued research and development of the model.

Next, a description of the model created is presented. Key versions of the model are presented in more detail. These versions include version 2, the one constructed after the workshop, and version 4, the final version. In between those sections, the results and analysis that led to the final model are presented. Describing the critical versions of the model highlights the significant changes done to it. Detailed progress with all version of the model can be followed in Appendix A.5 and Appendix A.6.

4.1 Mapping

This section summarises the data collected about the 26 companies included in the mapping, all of which are listed on the stock exchange. A list of all companies can be found in Appendix A.1. 38 factors were identified during the mapping of companies; all factors are presented in Appendix A.2. During the mapping, the factors were divided into three groups. One group with KPIs, one with more extensive content, and one group called "mention". ". The last one consisted of keywords that were often incorporated in annual reports and websites of software and SaaS companies. We observed that those words could indicate whether a company was working towards offering SaaS or already offered SaaS. By compiling all the information in the three groups, it was possible to observe how far a company had transformed its solution to SaaS.

Important observations done during the mapping are listed below.

- Companies listed on the stock exchange have broad businesses with multiple business areas focusing on different problems. A company usually has one area equivalent to a typical software company, but another area focuses on something else, such as hardware production.

- The companies already offering SaaS or companies expressing a clear focus to transform their business into SaaS often used specific words to describe their business. Some of these words include recurring revenue, cloud-based, scalability, and "prefix"-aaS, where prefixes included software, cloud platform, distribution, traffic enforcement, and risk assessment. All these prefixes refer to software that solves problems within that area.
- Based on what the companies expressed in their annual reports regarding SaaS and their future focus, a subjective ranking of how far they had come in working towards becoming a SaaS company was done. This ranking had six levels, where those in level six had come closest to offer complete SaaS, and those in level one had not recognised the benefits with SaaS and did not seem to be thinking about implementing SaaS as a way of offering software. A complete list of the definitions of the different levels is presented in Appendix A.3.
- All companies in the mapping used direct sales as their primary sales method. Eight companies complemented direct sales with sales through distributors, agents, or similar to reach additional customers.
- Fourteen companies mentioned that parts of their revenue are recurring, and eight of those companies specified how much of the revenue was generated repeatedly.
- The number of customer industries a single company focused on is often broad. The most significant number being ten industries. A majority of the companies in the mapping focused on more than five different industries.
- Seven of the companies explicitly mention that they are operating in niche markets.
- None of the companies in level six, referring to a high level of SaaS, mention that they had high customer concentration. The first one to define the customer concentration further was a company in level five, where the top ten customers represent 43 per cent of the total revenue. In the lower levels, more companies specified how much of their revenue came from their top customers. In their annual report, the only company mentioned that they were dependent on a low number of customers and had high customer concentration was in level five.
- Many of the companies somehow mentioned they would focus on SaaS going forward. According to the SaaS ranking of the 21 companies in level five and lower, 12 companies mentioned that they want to explore SaaS. The six companies in level six already had a functioning SaaS.

Factors included in the mapping not mentioned above did not provide any helpful information since no conclusions could be drawn.

4.2 Understanding the foundation of an investment decision

The understanding of how an investment process is structured and how an investment decision is made is based on experiences from Company X. In this section, information about the investment process, areas affecting an investment decision, and specific terms and definitions used by Company X are presented.

It is essential to understand the investment process, how the process could be improved, and the context of the model. Areas affecting an investment decision lists different aspects to take into consideration when making an investment decision. Specific terms and definitions used by Company X are included to show that companies may define parts included in the investment decision differently. In this thesis, definitions are aligned with Company X, which should be considered if applying the model to other venture capital firms.

4.2.1 Investment process

In the evaluation process Company X, performs an initial screening, aiming at collecting information necessary to decide whether a company is interesting or not. It regards KPIs, such as revenue, growth, EBITDA, and general information about the company, in terms of the number of employees, the target company's offering, services, products, and customers. All this information is compiled into a one-pager. The one-pager does also include which part of the IT landscape the company is part of and whether it has developed its own software or not. The initial screening of target companies needs to be efficient. Therefore, all the necessary information to make a decision needs to be accessible through Company X's data collection sources: the target company's website, google retriever, Linkedin, and, if needed, annual reports. The annual reports are only scanned if the necessary information cannot be obtained from the other data sources.

Based on the compiled information, Company X decides if the target company is attractive to invest in during an internal meeting. If a target company is approved at the internal investment meeting, the second phase includes a more in-depth analysis and evaluation. Company X approaches a target company at this stage, and the in-depth analysis is based on information gathered from the question battery sent to the target company. This analysis results in a conclusion whether Company X wants to invest or not.

4.2.2 Areas affecting an investment decision in addition to factors in mapping

This section summarises factors that an investment decision can be based on, identified through Company X. A critical thing to remember, according to Company X, "Everything is important" because factors are assessed together. If one factor is below standard, it could be offset by another factor being above standard. Therefore,

it is very complicated and complex to create a model for assessing a company that considers everything.

4.2.2.1 Key performance indexes

When assessing the KPIs of a target company, venture capital firms set up different investment strategy requirements. Company X does not have many hard limits that restrict a target company from continuing through the process. Company X assesses every company individually and looks at the KPIs in context to get a complete picture of the performance of a target company. The KPIs used in the evaluation process are Revenue, Profit and Costs, Growth, Recurring revenue, Customer concentration, and Employees per majority owner. Some of the KPIs are more important than others, and all KPIs used by Company X is described in the following sections.

First, revenue, profit, and costs are essential to assess. These metrics are closely related and are therefore assessed together.

Company X targets a particular company size and looks at revenues ranging from 20 MSEK to 200 MSEK. However, the revenue is not the main focus, and they clearly express that they do not invest in a company's top line, revenue. The focus is on the bottom line, profit, which is the most crucial factor that determines whether a company is attractive to Company X or not. Company X looks for companies that have been profitable for more than one year, preferably five years. If a company is not profitable, it is not of interest to Company X. However, other general requirements can be down-prioritised the company shows good profitability. The focus on profit rather than revenue is further underlined by a quote of an employee of Company X saying, "Growth does not pay the bills". With this, the employee also implies that profit is more important than historical or future growth.

The amount of cost that Company X approves is indicated by the profit margin they look for in a target company. With regards to the cost structure, they explain that low fixed costs are preferable. With low fixed costs, it is easier for a company to adapt its liabilities in an unexpected downturn in revenues. One employee at Company X explains that when they look at fixed costs, they also include personnel costs to avoid being in a situation where they own a company with many employees and little revenue since it could lead to the need to dismiss people. In short, Company X looks for target companies with high revenue per employee. The cost structure helps Company X understand how a company would perform in a recession, which is vital since Company X focuses on long-term ownership. However, it is also essential that a target company can show that their profit margin is stable and have the potential to be sustainable. Company X looks for indications that no other company can enter the market tomorrow to decrease the target company's profitability.

Secondly, it is crucial to assess the target company's growth. When Company X invests in companies, they want companies in the maturity phase. Therefore, they do not expect the potential target companies to have high growth, neither in revenue nor profit. Instead, they focus on companies that have shown stable revenue and

profit during at least five years. However, if the target company has revenue growth, the profit must follow the same trend as the growth. When Company X refers to stable companies, they mean a maximum change in revenue or profit by around 10 per cent, both up and down.

Third, the target company's recurring revenue is essential to assess. An important part of Company X's investment strategy is that they want to focus on companies with a high level of recurring revenue. By investing in companies with a high level of recurring revenue, the risk decreases since recurring revenue offers stability. Further, recurring revenue can also result in a lower CAC since it requires 4-9 times fewer resources to extend an existing customer contract or up-sale current contracts than to find a new customer.

Next, customer concentration is a KPI often used to evaluate the customer base of a target company. Company X's assessment of customer concentration has changed during the thesis. Initially, their attitude was low customer concentration, as it often indicates a low dependency for one or a few customers. Whether it is good or bad with low customer concentration depends on the nature of the target company. Company X has realised that high customer concentration can be beneficial since it implies that the target company can retain a good relationship with their customers and satisfy them. Similarly, high customer concentration is good if every customer drives a high fixed cost or a high initial cost, making it costly to have multiple customers. Therefore, the desired customer concentration can differ between target companies. SaaS companies often have low customer concentration since the software can be sold to multiple customers without increasing the costs.

Last, employees per majority owner is a factor identified during the research. Company X assesses the number of employees per majority owner since many owners can influence the process to sell the company and the transition phase. With fewer majority owners, the chance that the negotiations go smoothly and that everyone gets along is greater. Therefore Company X uses a general rule that a target company should have no less than ten employees per majority owner.

4.2.2.2 Product offering

A company's product offering is essential for a venture capital firm to assess since it should be aligned with the investment strategy. It is especially crucial for venture capital firms investing in companies with a specific type of product. Company X is interested in investing in companies within the software industry. The product should be a digital solution offered to business to business (B2B) rather than business to consumer (B2C). The product should also be offered or can be offered as an "as a Service". A term used by a Company X employee was "feg-SaaS", from Swedish to English translated to "coward-SaaS". The expression was used to explain a software company in possession of a SaaS solution, but the company is not evolving from the old way of selling software products. They have not yet realised the potential of transforming the offer to SaaS. This kind of company is of interest to Company X since the valuation of SaaS companies is generally much higher than traditional software companies. A company with a solution that no one else has accomplished

and where the solution can be transformed into SaaS is an attractive investment. Company X can help transform it, release untapped potential, and substantially increase its valuation.

Further, they value companies that have developed their software in-house since it gives exclusivity. Additionally, Company X prefers to invest in cloud-based solutions, but solutions delivered on-premises are not a deal-breaker. The reason being that many industries, such as banking and energy, require high security and therefore cannot have software solutions that are delivered through the cloud. Some software also requires on-premises installations, and Company X is still interested in investing in those companies.

Companies with hardware production internally are not of interest to Company X since their focus is on software companies. So far, they have not looked at any company that sells physical products. They could consider investing in a company that includes hardware in their product offering, as long as they do not produce that hardware themselves. The main reason for this is that production facilities often are connected with high fixed costs, which Company X prefers to avoid. However, hardware is not a part of Company X's business plan since hardware and production, even outsourced, may negatively affect the ability to offer software at a large scale. Hardware owned by a company should be restricted to software supporting facilities, like data centres, to be a compelling target company for Company X.

4.2.2.3 Niche and complexity

More specific to Company X is that they highly value and find interest in companies with a deep niche. A deeper niche often indicates higher entry barriers because specific knowledge is needed for that specific niche. Furthermore, larger companies targeting the broader market are often not interested in small, specific market niches. Therefore, there is often less competition within a deep niche, making it possible to maintain higher profitability.

There are two types of niches, vertical and horizontal. A vertical niche refers to a specific industry, and a horizontal niche refers to a system or a function. If a company has a vertical niche, they focus on a particular industry. An employee at Company X exemplifies a vertical niche as a company selling software developed to help the food retail industry in general. The software is not too specified, but they are specialised in the retail food industry. Another example is CRM systems, where an employee explains, "CRM is not a vertical niche, but CRM for a cemetery is one". A horizontal niche is when a company has a particular product, a system, and a function of knowledge that can be applied to various industries.

A deep niche indicated that the offering is more complex, which further protects the company against competitors. Complexity is a factor that Company X evaluates when making an investment decision since it is an approach to maintain future value. For Company X, complexity is determined by how difficult it is for other companies to enter a market. High entry barriers have a similar effect, prevents competitors from entering the market, and are something Company X also value when searching

for target companies. One way to achieve that is through niches, as explained above.

4.2.2.4 IT landscape

It is vital to acquire companies that do not cannibalise on each other to create a united group. The goal is that all the companies will continue to work independently but in symbiosis with each other. For example, Company X wants to avoid investing in two companies competing with the same customers. Instead, they want to invest in companies that can work together and refer customers to each other. Company X spread the risk across the IT landscape with a diversified customer base by investing in different companies and niches with different customers.

However, if a company's niche is too deep, it can prevent scalability and collaborations with other companies, limiting the potential synergies achievable by collaboration within the group. Company X describes an interesting company they looked at, where all KPIs were good, and it seemed like a good investment. However, they could not imagine how that company would work with the other companies within the Company X group and therefore declined to make an investment offer.

4.2.3 Specific terms and definitions used by Company X

Company X struggles with the definition of the term software company. They do not have a clear definition of either software company or SaaS company. They use specific indicators and common sense when looking at companies to decide if they could be classified as software company. So far, they have not encountered any problems because their current target companies are clearly software companies.

When Company X started, they had a more narrow definition of recurring revenue. This definition has since then been developed within the organisation to make sure everyone interprets it the same. It has resulted in a broader definition that includes many elements of the revenue that contribute to recurring revenue. They have divided recurring revenue into two revenue categories, software and operating agreements. In software revenue streams, there are two subcategories. The first one is licensing fees, subscriptions fees, and all revenue is related to SaaS. The second one is transaction-based revenues which are driven by volume or units. Operating agreements include revenue generated from services and all types of support and maintenance agreements. All revenue streams mentioned above are categorised as recurring revenue.

4.3 Model version 2 - after workshop

Creating a model to evaluate target companies and communicate the information proved hard to achieve with one single model. Therefore, two models were designed, *one for internal use* and *one for external use*. *The model for internal use* is applied during the evaluation phase in the internal investment process. *The model for external use* is applied when communicating the investment decisions, both internally and externally. The main difference between the models is that the model for external use is simplified to prevent information overflow. The two models complement

each other and can be used for different purposes. The information presented in the external model is based on information inserted into the internal model.

The foundation for the model created in this study was based on the model by Rajala et al. (2003) with four areas, product strategy, revenue logic, distribution model, and service and implementation (see Appendix A.5 version 1). A model was constructed based on the foundation but was extended to fulfill the implementation missions. In addition to Rajala et al. (2003)'s framework, *market* was added as another comparison area since it is highly valued by Company X (see Appendix A.5 version 2).

In the following section, *the model for internal use* and *external use* developed after the workshop is presented in detail. All comparison areas and metrics will be explained more thoroughly, why these areas are part of the model, and how they fit with Company X. See Appendix A.5 and Appendix A.6 for different versions of the model and Appendix A.4 for all definitions of the metrics.

4.3.1 Model for internal use

The model for internal use is divided into three areas: comparison area, comparison metric, and dimensions. An early version of the model can be found below in Figure 4.1. The five comparison areas are located to the left and divided into comparison metrics to clarify the comparison areas. Each comparison metric has its dimensions, which are designed to fit every specific metric. However, these dimensions are ordered to create a scale without assigning them with ratings. An analysis needs to be done based on the scale of each metric to decide which dimension a target company lies within. For some metrics, additional tables are developed due to the metric including multiple factors that needed to be considered. These tables aim to clarify what the metrics include and make it possible to make a more objective assessment. These tables were developed for *marketing and sales strategy*, *competitive landscape*, and *barriers to entry* and can be found in the following subsections.

Comparison Area		Comparison Metrics				
PRODUCT STRATEGY	Product offering	Customized				Standardized
	Add-ons & modularity	Limited selection				Wide selection
	Development	Externally sourced				Internally built
	Horizontal niche	No				Deep
REVENUE STRATEGY	Revenue streams	Per time unit	Per project	Transaction based	License	Subscription
	Recurring revenue (%)	<20	20-39	40-59	60-79	>80
	Contract length (months)	<3	3-6	7-12	13-18	>18
DISTRIBUTION	Sales approach	New customers	Equal focus new & old	Reconnect to lost accounts	Upsales	Extend existing contracts
	Customer concentration	Low				High
	Marketing & Sales strategy	Bad strategy	No strategy	Coincidence	Resource dependent	Well developed strategy
SERVICE & IMPLEMENTATION	Implementation	On prem installation				Cloud based
	Service	Responsibility	Customer			Full service provided
		Payment structure	Customer service only	Free of charge	Variable fee	Monthly+variable fee
		Executed		On prem		Monthly fee
MARKET	Vertical niche	No				Deep
	Market share (%)	<20	20-39	40-59	60-79	>80
	Competitors	Strong competition	Present threats	Present substitutes	Potential threats	Weak competition
	Barriers to entry (#)	<2	3-4	5-6	7-9	>9

Figure 4.1: *Model for internal use*

The version of the model created for internal use after the workshop. Information gathered up until and during the workshop is included.

4.3.1.1 Product strategy

The idea to include *product strategy* in the model was initially born when scanning theory. Company X further confirmed that this was an essential part of their process. *Product offering*, *add-ons and modularity*, *development*, and *horizontal niche* were chosen as important comparison metrics.

Product offering was included to indicate if a company has one *standardised* product that could easily be scaled up as SaaS or *customised* to suit every customer, which would create specific value for each customer or something in between. *Add-ons and modularity* were included to indicate how flexible the product is to change according to different customers' needs. If it has a *wide selection* of add-ons, the product could more easily be sold to a more wide selection of customers, both those having high demands for different functions and are prepared to pay for that and those having limited demand and a limited budget.

The purpose of the metric *development* was to get an indication of how knowledgeable and specialised a company is. According to Company X, if a company develops their product internally, it can indicate that they know the product well and have a unique solution.

The metric *horizontal niche* was included because of the importance for Company X to focus on companies with a deep niche. One way to achieve a deep niche is to focus on a specific product, system or function, which the level of horizontal niche indicates. Furthermore, the level of horizontal niche illustrates if a company are generalists or specialists.

4.3.1.2 Revenue strategy

The idea to include *revenue strategy* in the model arise from theory. *Revenue stream*, *recurring revenue*, and *contract length* were chosen as important comparison metrics. These were identified due to them being mentioned as necessary to Company X in their investment decision process.

Revenue stream indicates how a company's revenue is generated and illustrates if a company uses a charging model often used by SaaS companies or more traditional software companies. Further, different types of revenue indicate if a business is scalable or not since licensing and subscription fees are more scalable than those based on effort and time inserted into a project. The level of *recurring revenue* expressed in the percentage of total revenue was included to see how much of a company's total revenue is predictable. If a company's revenue is predictable, it is easier for a company to plan, which is valuable to Company X. Also, recurring revenue is a common KPI for SaaS companies, where SaaS companies usually have a high level of recurring revenue.

Contract length also indicates how predictable the revenue is. If *contract lengths* are long, a company can be more confident that they will have future income and make investments after that. However, it is more common for SaaS companies to have shorter contract lengths. Therefore, these metrics give an indication of predictability versus the SaaS level of a company.

To summarise, *revenue stream*, the level of *recurring revenue*, and *contract length* give a clear indication if a company offers SaaS or not, or if the company has SaaS potential.

4.3.1.3 Distribution

The idea to include *distribution* in the model originated from theory. Company X further confirmed that this was an essential part of their assessment process. *Sales approach*, *customer concentration*, and *marketing and sales strategy* were identified as important comparison metrics. In Rajala et al. (2003)'s framework, the medium through which the product is distributed, for example, through resellers, agents, or direct sales, is included but is not included in the current model because the distribution method for software companies interesting to Company X is almost exclusively direct sales. Therefore sales method was early in the process excluded from the model.

The purpose of the *sales approach* is to understand which focus a company's sales department has, which customers they put the most energy into selling. This metric is included to indicate if a company focuses on extending its customer base, existing accounts, or both, which is important since the cost of acquiring new customers generally is higher than extending existing accounts.

Customer concentration is tightly connected with which *sales approach* a company has. If the focus historically has been on extending existing accounts, the customer concentration is most likely higher than if the historical focus has been on selling

to new accounts. Low customer concentration means that the company has fewer customers and therefore is more dependent on each customer, which means that they are more vulnerable in terms of revenue decline if one account is lost.

By looking at *sales approach* and *customer concentration* together, an analysis of a company's customer dependence versus CAC can be done, indicating if a company has the correct number of customers and focusing on the right sales approach to improve its distribution strategy. SaaS is often associated with low acquisition cost, which potentially can result in a low customer concentration.

Marketing and sales strategy were included to consider how well a target company succeeds in achieving an efficient and suitable strategy. Further, the strategy is highly related to a company's revenue and can indicate the potential future revenue a target company can generate. To define how efficient the *marketing and sales strategy* is developed, the metric was further defined in an additional table (see Figure 4.2). The table summarises how well the strategy is developed in terms of *effort* and *output*. The effort is included since it is the resources that a company needs to put in, and these resources are limited. Meanwhile, the output is the result a company achieves based on the input. The effort is divided into low and high in the table, indicating resources and time spent on marketing and sales. The output is divided into high and low, where high is further divided into chance or intent. The low or high output shows how much sales are generated. If it is high, it can be either a coincidence or because of a good strategy, thus by intent. This design helps to show if a company has a *well-developed strategy* that is sustainable or if high sales numbers are by chance and hard to sustain.

Effort \ Output		High	
		Chance	Intent
	Low	No strategy (2) Little effort is put into marketing and sales. As a result low amount of sales is generated.	Coincidence (3) Little effort is put into marketing and sales but by chance sales are satisfactory. Could result in long term complications.
	High	Well developed strategy (5) Little effort is put into marketing and sales but due to a good strategy it is not needed. As a result satisfactory sales are generated.	Resource dependent (4) A great deal of effort is put into working with marketing and sales. As a result satisfactory sales are generated.

Figure 4.2: *Clarifying table for analysing Marketing and sales strategy*
Used for analysing the Marketing and sales strategy of a target company.

4.3.1.4 Service and implementation

The idea to include *service and implementation* in the model emerged from theory. *Service and implementation* were chosen as important comparison metrics. Service was further divided into three areas: *responsibility*, *payment structure*, and *execution*. These were identified since Company X mentioned them as necessary in their investment decision process.

Implementation considers if the product is installed at a company's premises or accessed through the cloud. It indicates if a company is more easily scalable or not. A company that implements all its solutions through the cloud can reach customers located anywhere, while *on-premises installation* requires someone to be present at the customer's location. Therefore, a company that uses *cloud-based* solutions does not have the limitation of personnel location and can more easily scale up. Offering a product through the cloud is one of the main characteristics of a SaaS company.

Service was divided into three areas representing different aspects of the total area. *Responsibility* was included to understand the company's commitment after the product is sold and implemented with the customer. It also gives a small indication of the complexity of the product. If a more significant responsibility for the product's functionality lies at the company selling the product, it could be because the product is more complex than if the customer takes over full responsibility for the product. *Payment structure* structure is included to identify payment structures that are secure and predictable. Offering service deals where the customer pays monthly recurring fees are a way to secure future revenue. *Execution* addresses the way the service is executed and is included because it complements the *implementation*. In the same way that *cloud-based* implementation potentially means that the business is scalable, offering service via the cloud also implies that the offering is scalable. Similarly, it is also a typical characteristic of SaaS.

4.3.1.5 Market

In addition to the comparison areas identified in theory, Company X mentioned *market* as essential to evaluate, resulting in its inclusion in the model. *Vertical niche*, *market share*, *competitors*, and *barriers to entry* were identified as important comparison metrics.

Vertical niche was included since Company X favour investing in companies with a deep niche. One way to achieve a deep niche is to focus on a specific market and serve a specific need. The level of vertical niche is indicating whether a company is market generalists or experts.

Market share was included in the model because it indicates how strong a target company is in relation to the whole market. The scale was divided into 20 per cent intervals. By assessing the market share, a couple of conclusions can be drawn. First, if the market share is small, the company is competing against either a lot of competitors or a few substantial competitors, which puts the company in an inferior position, but with the opportunity to expand if they have a better offer than the competitors. Second, if the market share is large, they are already in a good position, and the focus must be on maintaining that position and keeping competitors at bay.

Competitors were included since it indicates how competitive the environment is and how established and many the competitors are. This metric was further defined and structured in a table (see Figure 4.3). The table considers if there are *many* or *few* competitors, whether these competitors are direct or indirect, how strong their position is, and if they have a strong position or have a weak position. By

identifying competitors and including them when evaluating a target company, one can understand the competition and how it influenced the company today and how it may change in the future.

Position \ Presence	Few		Many
	Direct	Indirect	Direct
Strong	Present threats (2) Competitors in the market have strong position and the target company is in an inferior position. Since there are not many competitors it is somewhat easier to navigate the market.	Present substitutes (3) There are no direct competitors but substitutions to the target company's product exist. The substitution product have a strong position in the market and could become a threat.	Strong competition (1) Competitors in the market have strong position and the target company is in an inferior position. Since there are many strong competitors the market environment is especially challenging.
Weak	Weak competition (5) The target company has a strong position in the market. Competitors that exist, either direct or substitution products, are weak and does not pose any immediate threat.		Potential threats (4) Competitors in the market are weak but they exist, which can be seen as a threat since they are in a position to strengthen.

Figure 4.3: *Clarifying table for analysing Competition*

Used for analysing the position that the competition to a target company has in the competitive environment.

Barriers to entry were included in the model since Company X wants to invest in long-term solutions and competitive advantages. Having high barriers to entry indicates that it should prevent competitors from entering the market to a greater extent, and therefore, create future security. A simple scoring system was developed for barriers to entry, in an additional table (see Figure 4.4). The scoring system consists of seven barriers to entry, which can get either zero, one or two points, depending on if the barrier exists and how strong it is.

Entry barriers	Definition	Weak (1 points)	Strong (2 points)
Switching costs	The cost customers need to pay if they want to change brands, products or suppliers. High switching costs prevent customers from changing to competitors and creates a lock-in effect. Switching costs usually takes the form of monetary, but can also be in terms of effort, time, and psychological.		
Legal barriers	Established by governments to prohibit competition, and are usually categorised into four groups, patents, licenses, trade barriers, and standard and regulation.		
Technical expertise	Specialised competencies needed to accomplish certain tasks or expertise needed to enter a specific market.		
Knowledge intensive	All knowledge necessary to start a business within a certain market.		
High start up costs	Costs that the competitors need to finance when creating a new business. It refers to costs related to research, business plan, technology expenses, employees, promotion, etc.		
Pricing advantage	A beneficial pricing strategy that makes it difficult for competitors to enter the market with a similar price. I.e. predatory pricing refers to lowering the price, resulting in losses, to push or prevent competitors from entering the market.		
First mover advantage	Refers to the benefits a company achieves by entering the market first, such as network effects, access, size and learning effects.		
Brand loyalty	When customers are purchasing from a certain company repeatedly due to having a positive association with the brand, even though competitors have competing solutions. Businesses invest in marketing and customer support to maintain loyalty to the brand.		

Figure 4.4: *Clarifying table for analysing Entry barriers*

Used for analysing the entry barriers associated with a target company.

4.3.2 Model for external use

The model for external use is designed similarly as *the model for internal use* in terms of the comparison areas and comparison metrics. An early version of *the model for external use* can be found below in Figure 4.5. The dimensions used to



The version of the model created for external use after the workshop. Information

4.3.2.1 General characteristics

The general characteristics were set up using the dimensions. In some cases, information received from Company X was used to nuance the dimension and find words that expressed what a dimension means for the company. All general characteristics are presented in Figure 4.5

4.4 Development of the model

The initial models presented above have been under development during the whole process. Several versions of *the model for internal use* and *external use* can be found in Appendix A.5 and Appendix A.6. There are more versions of *the model for internal use* than *the model for external use* because the external one was initiated at a later stage and is derived from the internal one. The models have passed through two rounds of feedback interviews. In the following section, all input gained from the interviews is presented and changed the model.

4.4.1 The model for internal use

During the first round of interviews, before explaining the model in-depth, both interviewees I and II expressed that it was difficult to understand the dimensions of the comparison metrics. It was argued that the dimensions should be formulated more clearly as a scale. It was emphasised that some comparison metrics were easier to understand than others. Therefore, it was proposed that a possible solution could be to highlight a midpoint of the dimension to make it a more understandable scale. However, this suggestion was not a viable solution to implement in the model. Instead, the feedback was used as discussion areas in the second round of interviews to improve the model.

In the second round of interviews, it was confirmed that it was a bit confusing how many dimensions there were on the scale and whether *standardised* and *customised* was part of the scale or just categories. As a result, we decided that each dimension should be marked with roman numbers to clarify that all dimensions are part of the scale but still not ranked.

Additionally, during the first round of interviews, interviewee II expressed a liking to the idea of using the clarification tables since it is beneficial to have a definition that structures how the evaluation should be performed. However, interviewee II pointed out that having extra tables would be time-consuming, which needs to be considered.

4.4.1.1 Product strategy

In first round of interviews, both interviewees expressed an unclearness with the comparison metric *development*. Interviewee I started to talk about how efficient the development process is and how important it is to have a competent CTO. It was argued that many nonstrategic bosses lack steering, resulting in an inefficient development process. Interviewee II highlighted the importance of having a clear

structure, follow-up and roadmap. Initially, this was not meant to be part of the metric *development*. However, this indicated that the metric is vague and should be further developed. Interviewee II argued that it could be challenging to evaluate a developing process, especially when not having a technical background and the knowledge necessary to create an opinion. It was argued that it would be interesting to know; however, interviewee II expressed uncertainties regarding how it would work in reality, resulting in the name of the metric being changed to *development responsibility* with the dimensions *externally sourced* or *internally built*. This change only covers the critique that the name was unclear. However, it was discussed during the second round of interviews whether to remove, change it further, or keep the metric. It was decided that *development responsibility* was a preferable solution.

Interviews in the second round did not have anything to add to the comparison areas other than development responsibility.

4.4.1.2 Revenue strategy

In the first and second-round interviews, no thoughts or inputs were received regarding revenue strategy. All interviewees agreed that the metrics and dimensions were relevant to evaluate and that no part was missing. Therefore, this area was preserved going forward.

4.4.1.3 Distribution

In the first round of interviews, feedback was received regarding *customer concentration*. Interviewee II expressed that the *high* and *low* dimensions should change place on the scale since high customer concentration usually is less beneficial. A question was asked regarding how to evaluate customer concentration since it became apparent during the workshop that it is difficult to decide whether a *high* or *low* concentration is good. Interviewee II confirmed the difficulty and suggested that it could be beneficial to investigate whether a company has too few, enough, or too many customers. The reason is that some companies are more suited to have fewer customers; meanwhile, for other companies, their focus should be on extending their customer base. Therefore, interviewee II expressed that it would be more beneficial to have that type of evaluation in the model, thereby solving the difficulty of taking a stand on whether the customer concentration is high or low. The model was changed per the input.

In second round of interviews, discussion arose with regards to the *sales approach*. It was mentioned by interviewee III that a suitable strategy in terms of focusing on new customers or extending existing customers is dependent on several factors. If the sales process of acquiring a new customer is resource-demanding and much effort is required, focus on new customers may not be as suitable as extending existing customers. Further, it was argued that if the acquiring costs and effort are high, a company has more to lose if an account is lost. Meanwhile, a company with an effort and cost-efficient sales process can easily acquire new customers. Interviewee III emphasised that most target companies have good insight into the resources demanded to acquire a new customer. Usually, target companies know how long it takes from approaching a prospective customer until it results in a paying customer.

As a result of this input, a new metric was included in the model, the *length of the sale cycle*.

Further, interviewee III expressed that it would be more suitable to name the *sales approach* as *sales focus* since the dimensions are more about the company's focus and not about the approach. This suggestion resulted in changes to the model. An additional suggestion from interview III was that the comparison area *Distribution* could be renamed to "Customer" since the comparison metrics were all connected to the customer. This suggestion would result in a significant change compared to the initial model. Therefore, discussions arose about pros and cons, resulting in no change to the model.

4.4.1.4 Service and implementation

Service and implementation were both seen as relevant according to the interviewees in both the first and second round of interviews. However, in the first round of interviews, interviewee II expressed that it may be challenging to evaluate the service aspect. It was argued that it was an interesting factor in the model, and it was well-designed. Instead of changing the model, it was expressed that it is essential to construct straightforward questions that can be asked to target companies. After that, the answers received from a target company can be used to create an interpretation of this area to be able to make an evaluation.

4.4.1.5 Market

During the first round of interview, three areas received feedback.

First, the division of the scale connected to *market share* was suggested not to be as relevant as it could be. In the model, the dimensions were divided into 20 per cent intervals; however, interviewee I expressed that most Company X target companies have a lower market presence; they are not market leaders. Therefore, having intervals with 20 per cent per dimension distributed equally was unnecessary. Instead, interviewee II suggested smaller intervals in the lower percentage levels and larger intervals in the higher percentage levels. The maximum interval was suggested to be more than 40 per cent, and the rest distributed equally between 0 and 40 per cent. Interviewee I further expressed that many target companies may not know their market share but agreed that it is still interesting to consider. Further, it was mentioned that if a company knows its market share, it indicates that they have done the research and have obtained a deep understanding of their market. This knowledge can be used to their advantage, which could be beneficial for Company X.

Second, the metric *barriers to entry* was discussed. According to interviewee II, the developed scoring system for *barriers to entry* was highly suitable since it makes it very comparable, both between target companies and that all employees can evaluate a company similarly. Interviewee II mentioned that Company X is not talking about barriers to entry in the terms presented to her Figure 4.4. Company X talks about barriers to entry in general terms, but they have not divided them into specific barriers. The presented entry barriers were all relevant; however, it was emphasised

that all knowledge is important, not only the technical expertise. Therefore, as a result of the input, it was decided to keep the more detailed barriers to entry in the model but add *knowledge* as an additional barrier.

Third, it was suggested that an additional metric should be added. As part of the comparison area *market*, interviewee II suggested adding geographical markets. Company X is currently focusing on the Nordics; however, interviewee II argued that if a target company offers SaaS, it is highly beneficial to reach a larger market. However, it was decided to not include this suggestion in the model. The argument for not including it is that geographical markets should be part of the initial screening and one-pager and not part of the in-depth evaluation.

In the first round of interviews, it was mentioned by interviewee III that it was misleading to call the competition strong within the clarifying table on *competitors*. It was argued that the word "strong" should be used when describing a target company and not the competition. As a result of this input, two dimensions were renamed. Strong competition as *high level of competition* and weak competition as *low level of competition*. In the clarifying table explaining the comparison metric *competitors*, strong was changed to *superior* and weak to *inferior*, see Figure 4.6

Position \ Presence	Few		Many
	Direct	Indirect	Direct
Superior	Present threats (2) Competitors to the target company hold superior positions on the market. There are not many actors on the market which makes it somewhat easier to navigate the market.	Present substitutes (3) No direct competitors exist but substitutions to the target company's product exist. The companies offering the substitution products hold superior positions on the market and could potentially become a threat.	High level of competition (1) Competitors to the target company hold superior positions on the market. There are many actors present and the market environment is especially challenging.
Inferior	Low level of competition (5) The target company holds an superior position on the market. Competitors that exist, either direct or substitution products, hold inferior positions and does not pose any immediate threat.		Potential threats (4) Competitors to the target company hold inferior positions but they exist, which can be seen as a threat since they are in a position to strengthen.

Figure 4.6: *New clarifying table for analysing Competition*
Used for analysing the position that the competition to a target company has in the competitive environment.

Further, it became clear that *switching cost* is something Company X considers when evaluating a target company. This factor is essential to consider because high switching costs create a lock-in effect on the customer and, therefore, creates security for the company. Further, it was explained by interviewee III that if a company has short contract lengths, high switching costs can replace it since both metrics create future security. As a result, it was decided to add switching costs as an additional entry barrier.

4.4.1.6 Organisation

The comparison area *organisation* was not part of the first iteration of the model. However, during the first round of interviews, both interviewees expressed a wish to

include the internal organisation and its maturity as an additional comparison area.

As a result of *organisation* being added, the metric *marketing and sales strategy* was moved from *distribution* to *organisation*. The reason is that this metric is an internal process and, therefore, more suited in this area.

Further, both interviewees clarified that a target company's maturity is essential to consider in the investment decision. Interviewee I expressed a desire to include maturity in the model since it influences the evaluation of a target company because they want to invest in more mature companies since they are easier to deal with when the investment has taken place. Interviewee I believed it would be possible to perceive a company's maturity level if the right questions were asked. Interviewee II declares that in their current evaluation process, they ask questions regarding the sales process and recruitment process, which indicates how well-developed the internal structures and processes are. Company X considers how many salespersons the company employs and if the sales process is structured. All of these aspects together give a more in-depth view of how well-developed the company is. However, interviewee I expressed a concern that a target company may not give answers that reflect reality. Sometimes their vision is to work in a certain way, such as working according to processes, control documents, but it is not done in the everyday work. However, interviewee II argued that looking at the internal processes could still indicate the matter. It was mentioned that this evaluation should include investigating how well-structured all the processes are, how knowledge is documented, and how well the administration is done. As a result of these insights, the metric *structure and process* were added to evaluate the internal processes. Furthermore, to assess how well-developed structure and processes are in a target company, the metric was further defined in an additional table (see Figure 4.7).

Parts of a organization	Not structured	Structured
Recruitment		
Documentation of knowledge		
Administration		

Figure 4.7: *Clarifying table for analysing Structure and processes*
Used for analysing how well-developed structure and processes a target company has.

Interviewee II explained that in Company X's current evaluation process, they look at various internal aspects, where the maturity level is one aspect. Company X looks at other aspects, such as the internal knowledge, who possesses that knowledge, if the company is dependent on some specific employees or owners. Therefore, *dependence* was added as a comparison metric. The reason to consider this metric is that if only a few employees possessed the existential knowledge, it makes a target company vulnerable.

In the second round of interviews, it was expressed by both interviewees that it would be preferable to call the column in the clarifying table for the metric *marketing and sales strategy*, random instead of chance. Therefore, the model has changed accordingly (see Figure 4.8).

Effort \ Output		Low	High	
			Random	Intent
	Low	No strategy (2) Little effort is put into marketing and sales. As a result low amount of sales is generated.	Coincidence (3) Little effort is put into marketing and sales but sales are satisfactory because of unknown reasons. Could result in long term complications.	Well developed strategy (5) Little effort is put into marketing and sales but due to a good strategy it is not needed and satisfactory sales are generated.
	High	Bad strategy (1) A great deal of effort is put into working with marketing and sales but low amount of sales is generated.		Resource dependent (4) A great deal of effort is put into working with marketing and sales. As a result satisfactory sales are generated.

Figure 4.8: New clarifying table for analysing Marketing and sales strategy
Used for analysing the Marketing and sales strategy of a target company.

Further, it was argued by interviewee III that it would be suitable to have the *marketing and sales strategy* as a part of the comparison area *distribution* since it is highly related to the *sales focus*. However, it was decided that the metric would remain within *organisation* due to it being related to how well-structured the internal processes are. Further, interviewee III expressed that Company X usually tries to identify what is most challenging when growing the business, accessing the right competence, or attracting new customers in their contact with target companies. As a result of this input, an additional metric was added, *competence*, which indicates whether a company can access the necessary competence or if it is a scarce resource.

4.4.2 Model for external use

The input gained about the model for external use was only focused on making the design better. The external model aims to communicate decisions and a strategy, which makes the design crucial.

During the first round of interviews, interviewee I argued it would be valuable if it is possible to create scales where dimensions on the right characterised a SaaS company that is also in line with Company X's investment strategy. This input resulted in adding a fading colour code on the dimensions. This colour code considers both the wish to make it a more explicit scale and highlight which position on the scale represents a SaaS company. Important to notice is that the right side is a developed SaaS company. A company with SaaS potential is probably somewhere in the middle, where the assessment has been done that it is possible to make changes to the company to end up to the right on the scale eventually.

Further, interviewee I suggested that having crescents in some comparison metrics and circles in others left the user wondering about its purpose. When the purpose

was put forward, interviewee I thought it made sense. However, it indicates that it was problematic to understand the model, especially if it is shown to external stakeholders with a limited understanding of the model. Another insight on the design was the decision of having lines connecting the circles. When explaining the purpose of this choice, it also made sense to interviewee I. However, when presenting only one targeting company in the model, interviewee I argued that it might not be necessary to draw lines as it may confuse the viewer more than it adds value.

Interviewee I argued that having general characteristics are valuable since they are easy to communicate. However, when the model was presented, these sections did not have a name, which both interviewees argued was unclear. Therefore, general characteristics were added as a name to clarify what the descriptions represent. Further, interviewee I argued that it could be beneficial to explain the company in terms of what they do, the owner, and so forth. However, interviewee I believed that it may not always be necessary to have it in the model; sometimes, it could be presented in a separate model, depending on the situation in which the model is used. Interviewee I emphasised the value of having a model that can easily be changed per the situations, which this model achieves. Interviews in the second round did not have anything to add regarding *the model for external use*.

4.5 Model version 4 - Final model

The final model, including both *the model for internal* and *external use*, was completed when all inputs had been incorporated. Interviewee IV stated that the created model is highly credible, both internally at Company X but also to investors, banks and owners, since it is both well-developed and evaluated. The model incorporates soft metrics and enables trade-offs depending on the situation. Thoughts that Company X has talked about can now be visualised into a model, which creates more value compared to when it was their thoughts and arguments not written down. The final versions of the model for internal and external use is shown below in Figure 4.9 and Figure 4.10.

According to interviewee I, the model should be put in use to see what works and what does not work to be able to identify improvement potentials.

4. Results and Analysis

Comparison Area	Comparison Metrics	I	II	III	IV	V
PRODUCT STRATEGY	Product offering	Customized				Standardized
	Add-ons & modularity	Limited selection				Wide selection
	Development responsibility	Externally sourced				Internally built
	Horizontal niche	No				Deep
REVENUE STRATEGY	Revenue streams	Per time unit	Per project	Transaction based	License	Subscription
	Recurring revenue (%)	<20	20-39	40-59	60-79	>80
	Contract length (months)	<3	3-6	7-12	13-18	>18
DISTRIBUTION	Sales focus	Extend existing contracts	Upsales	Reconnect to lost accounts	Equal focus new & old	New customers
	Sales cycle length	>6 months	4-6 months	1-3 months	<1 month	Instantaneous
	Customer concentration	Above preferred level				Below preferred level
SERVICE & IMPLEMENTATION	Implementation	On prem installation				Cloud based
	Service	Responsibility	Customer			Full service provided
		Payment structure	Free of charge	Variable fee	Monthly+variable fee	Monthly fee
		Execution	On prem			Remote
MARKET	Vertical niche	No				Deep
	Market share (%)	<10	10-19	20-29	30-39	>40
	Competitors	High level of competition	Present threats	Present substitutes	Potential threats	Low level of competition
	Barriers to entry (points)	<2	3-4	5-6	7-9	>9
ORGANIZATION	Marketing & sales strategy	Bad strategy	No strategy	Coincidence	Resource dependent	Well developed strategy
	Competence	Scarce				Available
	Structure and processes	Not structured				Structured
	Dependence	Person				Process

Figure 4.9: Final model for internal use
A model for internal use when making an objective assessment of a target company.

Comparison Area	Comparison Metrics		General Characteristics	I	II	III	IV	V	General Characteristics	
PRODUCT STRATEGY	Product offering		Customized products	○					Scalable products	
	Add-ons & modularity									
	Development responsibility		Product generalists	○				Product experts Deep product niche		
	Horizontal niche									
REVENUE STRATEGY	Revenue streams		Effort based revenue Project based contracts	○					Predictable & secure revenue Long term contracts	
	Recurring revenue									
	Contract length									
DISTRIBUTION	Sales focus		Focus on existing accounts High customer dependence High CAC	○					Focus on new accounts Low customer dependence Low CAC	
	Sales cycle length									
	Customer concentration									
SERVICE & IMPLEMENTATION	Implementation		Less hackable Generic service Less responsibilities	○					Scalable service Long term contracts & responsibilities Long revenue tail	
	Service	Responsibility								
		Payment structure								
		Execution								
MARKET	Vertical niche		Market generalists Inferior market position	○					Market experts Deep market niche Market leaders	
	Market share (%)									
	Competitors									
	Barriers to entry									
ORGANIZATION	Marketing & sales strategy		Improvement potential	○					Well developed Good position	
	Competence									
	Structure and processes									
	Dependence									

Figure 4.10: Final model for external use
A model for external use when communicating a target company's strategy.

4.5.1 How to use

In this section, it is described how the model is used and it is presented divided into *the model for internal* and *external use*.

4.5.1.1 Model for internal use

The model for internal use is used to evaluate a selected target company that has passed the first screening. In terms of the comparison area, comparison metrics, and dimensions, this model is used to formulate questions for the question battery sent to a target company. The question battery is used to gather the necessary information that could not be found on a target company's website, Retriever, LinkedIn, and annual reports. Based on the collected information, the model is filled out by marking the most relevant dimension, and if necessary more than one dimension may be marked. Some areas may not be possible to mark if the information is incomplete or unknown. The marked model gives an overview of the company and its business model.

4.5.1.2 Model for external model

The marking of *the model for external use* can start when *the model for internal use* is completed. The marking in this model is based on a weighted average from each comparison area in *the model for internal use*, except from *product strategy* that is divided into two markings. The marking created in *the model for external use* is then used to get a whole picture of a target company, which potentially is compared with other target companies in the pipeline or compared with Company X's investment strategy. Further, the created profile is easy to communicate to the internal investment committee and external investors.

5

Discussion

In this chapter, a discussion will be presented based on the previous chapter's empirical findings. The findings will be compared and put in relation to the theory presented in Chapter 2. The discussion is divided into three sections: assessing the final model - its structure and content, reassuring proper use of the model, and method reliability.

First, the final model is assessed based on theory. This section provides validity to the structure and content of the model. Second, the section "Reassuring proper use of the model" is included to avoid pitfalls encountered when using the model. Third, method reliability is included to discuss the methods used that are more controversial.

5.1 Assessing the final model - its structure and content

The foundation of the created model is based on the model by Rajala et al. (2003), which was identified in theory. The main elements presented in Rajala et al. (2003)'s model were used: *product strategy*, *revenue logic*, *distribution*, and *service and implementation*. Rajala et al. (2003)'s model was extended with insights from Company X's investment strategy to construct a more comprehensive model. According to Company X, it is essential to consider the position a company has in the market and if it is possible to maintain or improve that position. Therefore, the *market* was incorporated into the model. Similarly, evaluating the organisation is essential for Company X when making investment decisions. Company X wants their investments to be long term, motivating them to know they invest in organisations fulfilling their requirements. Therefore, the organisation was added to the model.

Rajala et al. (2003)'s framework was extended additionally with added metrics to each area. Rajala et al. (2003)'s framework only had five alternatives within each area, all placed on one scale. These five alternatives did not have the details required to evaluate a company and get a comprehensive company picture. As a result, each area was divided into three or four metrics to create a more extensive model. Some of the metrics and dimensions created were influenced by the alternatives Rajala et al. (2003) had in the model. Others were identified in interactions with Company X,

and the rest was found in the literature or mapping. However, all metrics identified were adapted to be aligned with investment analyses done on SaaS companies. If this model was created based on another strategy in mind, for example, focusing on investments in traditional software companies, the model should have been created differently in terms of other comparison metrics and dimensions.

Many factors presented by Company X did not have clear definitions or names. Instead, they used arbitrary definitions and explanations that were understandable to employees at Company X since it was incorporated into their daily work and thought process. It has not been an issue for Company X so far since they are currently a small company. However, they understand that this may become a problem going forward when growing into a larger organisation. Therefore, an essential part of the research was to capture Company X's thoughts and related them to the theory and the factors identified in the mapping. In other terms, helping them structure their thoughts, which had not been done before, was a critical mission.

When the dimension scales were created, it was done bearing in mind that the model users are foremost Company X's employees. Therefore, some of the scales are subjective, requiring the users to know the industry of which the target company is a part. For example, what a too low versus too high customer concentration is within that industry. This subjectivity was unavoidable since many of the metrics are soft metrics that are not measurable in the same way as hard metrics. Soft metrics are often measured by comparing the analysed variable to the standard of, for example, an industry or collection of companies. This standard must be known by the one performing the analysis. Therefore, some prior knowledge is needed about the type of company that is analysed.

In the model, the dimensions to the right relate to SaaS companies. However, a venture capital's focus may not merely be to identify companies at that stage. As a result, multiple levels on the scale can be attractive. What is essential to consider is that a target company can move towards the preferred level looking forward. In this way, the model can identify target companies that can potentially become SaaS or companies already transforming their offer into SaaS.

Further, it became clear in interviews with Company X that it is challenging to take a stand whether a single metric's level on the scale is good or bad. Instead, the evaluation of factors depends on each other. Therefore, it is essential to incorporate these thoughts into the model. The resulting model is designed to capture the whole picture of a company instead of valuating each metric independently. Values that could potentially be interpreted as less attractive can instead be put into a context to understand better. It could potentially be that a target company has very short contract lengths, which initially can be seen as unsatisfactory. However, if the switching costs are very high, it creates almost the same result as if the contracts were long since both create a lock-in effect. Therefore, the model has been designed to leave each factor's perception aside and instead focus on creating a whole target company's perception.

In the following section, arguments will be put forward regarding the design of each area, metric, and dimension. Each area will be presented and discussed with the theory and information gathered through Company X.

5.1.1 Product strategy

When assessing *product strategy* it became clear that *product offering*, *add-ons and modularity*, *development responsibility*, and *horizontal niche* were relevant metrics to assess. These factors are similar to the factors identified by Rajala et al. (2003) and Schief and Buxmann (2012). There are three main differences between the model and the theory. The first difference is that investment decisions, unique selling points, and value chain (Schief & Buxmann, 2012) are excluded from the model because they did not contribute valuable information in a more in-depth analysis. The unique selling point should be covered in the initial screening of the company. Investment decision and value chain are unique to each company, making them too broad to include in this type of model. The second difference is that the product strategies mentioned by Rajala et al. (2003), customised products, product platforms, uniform core products, modular product family, and standardised online services, are expressed using two metrics, *product offering* and *add-ons and modularity*. By varying those two factors, all product strategies mentioned by Rajala et al. (2003) can be achieved, thus indirectly including all possible strategies. The third difference is that horizontal niche is included in the model, which is not mentioned in theory regarding product strategy. This factor was included since Company X expressed that it is essential to consider. One could argue that venture capital firms should invest in companies possessing a preferable product strategy since it is the core of the target company and more challenging to change than other areas.

The theory clearly describes a trade-off *standardised* and *customised* products (Dobson & Yano, 2002), which is in accordance with what Company X assesses. Therefore, the dimensions for this metric were constructed as a scale between the two alternatives. Within the theory, it is expressed that there are advantages with both having customised and standardised solutions (Evans & Webster, 2007). However, Company X sees more advantages in a standardised product offering when assessing SaaS companies because of the scalability opportunities it enables.

Even though theory had different definitions of *add-ons and modularity* (Xiang et al., 2019; Bråtegren, n.d.), a definition could be decided on for this thesis. Bråtegren (n.d.)'s definition was used since it aligns with what Company X refers to when discussing *add-ons and modularity*. The definition is straightforward, offering different functionalities to different customers to satisfy their exact needs, and dimensions could be decided on, ranging from *limited* to *wide selection*. By analysing this metric, it is possible to assess if a company's product offering is scalable to different customer types without changing the offering. *Add-ons and modularity* indicate the flexibility of a company.

In theory, much focus is put on how the development of a product is performed, in other words, the development process. There are new methods and alternatives

available for the development process, and companies need to decide on how the development process should look and who should be responsible for developing the software (Mital et al., 2008), which was also mentioned to be of interest to Company X in one of the interviews. However, assessing the development process is difficult since it may require extensive technical knowledge. Thus, including it in this model proved to be complicated. Therefore, *development responsibility* was included in the model instead. It does not show how well the development process is structured, but it does consider if a company has the required resources to handle the process and knowledge to execute it, which was seen as a suitable solution to a complex problem, and the dimensions are ranging from *external sources* to *internally built*. *Internally built* indicate that the resources and knowledge required exists within the company. However, this metric cannot be dealt with alone; one needs to consider the result of the development process. Even if the development process could be handled internally, it does not mean that the result is satisfactory. For example, if the software has poor quality, it does not matter if it is developed internally; it is still of poor quality and unsuitable investment target. Therefore, it is essential to look at the result of the development process, in other words, the developed software, when assessing this metric. According to Company X, the target company's product offering is evaluated in the first screening and only moved forward if sound quality is achieved.

The meaning of horizontal niche for Company X matches the definition mentioned in theory by Omile (2020). A company can either have a *deep horizontal niche*, or *no horizontal niche*, making the construction of dimensions easy. Company X believes that a deep horizontal niche is essential. However, this is not the only opinion found in theory. Omile (2020) describes that a deep horizontal niche can be a limitation because it may lose the holistic perspective of the business they provide. Theory and Company X disagree on whether having a horizontal niche is preferable or not. A decision was made to include the metric in the model. By doing so, venture capital firms can make an active choice whether to prefer a deep horizontal niche or not. If horizontal niche were not included, the choice would be made for them.

Company X argues that software companies with a horizontal niche succeed with delivering well-developed software within a system or function, making the company experts on that specific system. Furthermore, knowing the level of horizontal niche that a company has is valuable since having a deep niche can be associated with less competition.

The dimensions of *product offering* and *add-ons and modularity* were consistent with the product strategies brought up by Rajala et al. (2003), *customised* versus *standardised* products. Therefore, the general characteristics in the model for external use were derived from theory. A *customised product offering* and a *limited selection of add-ons and modularity* are consistent with a product strategy customised after each customer. The advantage of having a customised offering is that many different customers can be reached. However, having a customised offering is resource-dependent. Therefore, scaling that sort of company can be connected with high costs. The opposite side of the scale, with the dimensions, *standardised product*

offering and *wide selection of add-ons and modularity*, can be described with the general characteristic scalable product. The reason is that even though a particular need can not be met, like with customised products, it is cost-efficient to sell an additional product. Cost efficiency is reached with standardised products, especially software products since no extra cost is associated with producing an extra unit.

Product generalists versus *products experts* are two characteristics that Company X use when assessing target companies. These two general characteristics can easily be connected to the dimensions of *development responsibility* and *horizontal niche*. A company is product generalists if they do not develop their own product simultaneously without a deep niche. The reason being that they most likely buy products that others also have access to on a broad market, thus, making them one of many, hence generalists. On the contrary, a company is most likely product experts if they develop their product by themselves and are active within a deep horizontal niche. Most likely, there are not many competing companies doing the same thing, and they possess the level of expertise required to develop the product themselves. If investing in smaller companies, one could assume that when a target company develops its software in-house, it focuses on a single need, putting them in a niche.

5.1.2 Revenue strategy

When researching *revenue strategy*, it became clear that *revenue streams*, *recurring revenue*, and *contract length* were necessary metrics to include in the model. Rajala et al. (2003) and Schief and Buxmann (2012) motivate that *revenue strategy* is essential to assess since it considers how the revenue is generated. Therefore, *revenue stream* is added to the model to consider how the customers are being charged and how the revenue is generated. In addition to a revenue stream, two additional metrics are added, which was not part of the models presented in theory. First, *recurring revenue* is included in the model. According to Company X, recurring revenue is significant to assess when investing in SaaS companies. Secondly, the *contract length* is added to the model. This metric is included because Company X, on numerous occasions, mentioned contract lengths as an essential factor since it creates stability and makes it possible to predict future revenue streams.

Regarding revenue stream, the theory clearly expresses that there are multiple ways for a company to charge its customers (CFI, n.d.). As a result, dimensions were established per Rajala et al. (2003) and Schief and Buxmann (2012), adding different revenue streams: time per unit, per project, transaction-based, license, and subscription. However, some strategies mentioned by Rajala et al. (2003) and Schief and Buxmann (2012) were left out since they, according to Company X, are not applicable when assessing the company's SaaS potential.

Company X's definition when referring to recurring revenue differs from the definition by CFI (n.d.). The reason is that Company X has extended their definition of what counts as recurring, and therefore, re-defining recurring revenue. Based on the collected data in the mapping and the discussions with Company X, it became clear that licensing fees and fees for after-services and maintenance usually

brings the same benefits as recurring revenue. Companies with recurring revenue are mentioned as more predictable and stable by CFI (n.d.), which is aligned with the advantages that recurring revenue brings according to Company X. One could argue that the definition used by Company X is defensible since other forms of revenue generated repeatedly, create the same value as recurring revenues as defined by theory. The dimensions related to this metric are a scale representing 0 to 100 per cent of the total revenue generated from recurring revenue.

During the research, it has become clear that recurring revenue is a widespread buzzword used to highlight a SaaS company. A SaaS company is usually valued higher than traditional software companies, making it interesting to identify companies that currently do not offer SaaS but can potentially develop SaaS.

Company X takes the *contract length* into account since it can help them understand the stability the target company has. The dimension scale for *contract length* ranges from less than three months to more than 18 months. Having long contracts indicates if a target company's revenue will likely remain stable in the future. Dubey and Wagle (2007) state that the customers have an advantageous position with SaaS since they can easily change software supplier if they are not satisfied. Including *contract length* in the model helps the investing venture capital firm make sure that the power remains within the software company instead of at the buyers, creating stability. However, the preferred level of long contract times must be weighted because shorter contract lengths are more common for SaaS companies.

In *revenue strategy*, stability is a word describing each of the metrics on the right side. Both CFI (n.d.) and Dubey and Wagle (2007) use high recurring revenue and long contract lengths as a way of foreseeing a target company's future, hence stability. As a result, the meaning of a stable company is added as a general characteristic. However, stability can be used in multiple settings to describe a company. Therefore, to make it more specific, *predictable and secure revenue* and *long-term contracts* describe a company with subscription fees, high recurring revenue, and lengthy contracts. On the contrary, charging according to per time unit, having no recurring revenue and short contract lengths, is described by the characteristics of *effort based revenue* and *project based contract*. A target company with effort-based revenue streams cannot take anything for granted, and to be able to retain the revenue levels, they need to put in the effort needed to achieve it.

In evaluating a target company, Company X considers their investment risk and what they can expect from that specific investment. The advantage of investing in companies described with the characteristics of *predictable and secure revenue* and *long term contracts* is that future revenue can be foreseen, making the investment less risky. Additionally, companies described with the characteristics of *effort based revenue* and the *project based contract* can easily experience drastic turns in revenue streams concerning risk.

5.1.3 Distribution

Regrading *distribution*, Rajala et al. (2003) and Schief and Buxmann (2012) agree upon many of the factors that should be analysed: market, customers, and sales channels. Company X agrees with them to some extent, but some factors are too general to be valuable in the model used to evaluate its SaaS potential. According to (Chung, 2021), SaaS companies mainly use direct sale, not partnerships, which motivates removing resellers or OEMs from the model. Further, the *market* is not included in this area because Company X express that a deeper analysis of this area is valuable. Therefore, analysis of the market is done in a separate area. Instead, distribution is focused on the target company's customers. During discussions with Company X, it was argued that the area could be renamed to customers instead of *distribution*. However, the metrics focus on how the distribution affects the different aspects of a company's customer base, motivating keeping the name *distribution*.

Arnold et al. (2011) describe two types of *sales focus*, customer retention and customer acquisition. Which focus a company chooses can affect the performance of a company, both short and long-term. The immediate effect is that it is more expensive to acquire new customers than retain existing ones. However, only focusing on existing customers may result in long term complications if the customer base becomes too small. Therefore, a company needs to find a focus that complements the existing customer base. The existing customer base can be analysed using *customer concentration*. Which level of *customer concentration* is preferable depends on the type of company and industry that the company acts within. Therefore, the dimensions in the model range from *above preferred level* to *below the preferred level*. This way, the model is suitable to use for different types of target companies. If a company is too dependent on a few customers and *customer concentration* is above the preferred level, it may be preferable to attract new customers. If a company puts too many resources into attracting new customer, CACs are too high, and the customer concentration is below the preferred level. In this situation, it may be preferable to focus on selling to existing customers.

Additionally, the preferred focus also depends on the costs connected to the sales process for a new customer. This cost differs between companies and is often higher for more complex products. The metric *sales cycle length* is added to gain a perspective of the CAC. Here the assumption is that a longer sales cycle is more costly, expressed by an employee at Company X. Based on the reasoning above, if a *customer concentration* is *above preferred level*, it is costly to acquire new customer, it shows Company X that it will be resource consuming to achieve a preferred level of customer concentration.

The dimensions of the metrics discussed above are distributed over a scale where dimensions to the right are more connected to SaaS companies' general characteristics than those to the left. Within these metrics, there is a trade-off between SaaS and complex products. SaaS companies are often associated with low CACs, and complex products are often associated with high CACs. Therefore, it is essential to understand the underlying factors to the placement on this scale and not disregard

companies that could have been of interest. For example, a more balanced focus between new and existing customers may be preferable, why this is indicated in the model.

The general characteristics for *distribution* were decided using the reasoning above. If the focus is on selling to existing customers, the customer base is most likely smaller than if the focus is on selling to new customers. Therefore, the characteristic *high customer dependence* is placed in line with the focus on existing accounts and *low customer dependence* is placed in line with the focus on new accounts. Furthermore, the reason for the sales focus can be related to the cost of acquiring a customer. If CAC is high, the focus is more likely on existing accounts. Similarly, if the CAC is low, the focus is more likely on new accounts. Thus, the high CAC is placed together with the focus on existing accounts and high customer dependence, and low CAC is placed together with the focus on new accounts and low customer dependence.

5.1.4 Service and implementation

Rajala et al. (2003) and Schief and Buxmann (2012) agree that how the implementation is done, what services are offered, to what extent the services are customised or standardised, and how frequent the services are delivered are factors that should be taken into account when assessing a software company. It is something that Company X agrees with as well. As a result, *service and implementation* are added as metrics to evaluate. Further, *service* was divided into three metrics: *Responsibility*, *Payment structure*, and *Execution*, mainly making the assessment more straightforward to perform since taking a stand to service, in general, would be difficult. The three metrics are mentioned to some extent by Rajala et al. (2003) and Schief and Buxmann (2012). *Responsibility*, how often the service is delivered and who has the responsibility to assure that the product is functioning. *Execution* as whether the service is performed on-premises or through the cloud. In addition to theory, *payment structure* was added since it is vital to understand how revenue is generated after the software has been delivered, according to Company X.

Rajala et al. (2003) and Schief and Buxmann (2012)'s way of defining *implementation* is the same as the one used by Company X. In accordance with the theory, the implementation metric ranges from being done *on-premises* to through the *cloud*. Company X considers *implementation* an interesting factor to assess, and the reason is that the implementation can indicate how scalable software is. If software needs to be implemented on-premises, it limits the possibilities to scale the product and offer it as complete SaaS.

Rajala et al. (2003) and Schief and Buxmann (2012)'s definition of service includes both support and maintenance, which aligns with Company X's definition of service. As mentioned, the *service* is divided into three metrics to make it easier to create a perception of the target company's service offering. The reason why service is interesting to assess is somewhat related to the recurring revenue. According to Company X, it is valuable to identify whether or not a target company has long

revenue tails, which refers to the revenue generated after the software has been implemented. All three metrics explain how long the revenue tail is or the possibilities of creating one. First, *responsibility* considers whether the customer obtains responsibility for all the services or the software supplier provides all services or something in between. If the company offers full services, it indicates a possibility to have a long revenue tail. Second, the *payment structure* shows how the customer is charged for the service, and it ranges from being free to charge for the occasion or a monthly fee. All dimensions except "free" create a revenue tail for the target company. However, how predictable the revenue tail is, depends on the charging method. Third, *execution* is defined similarly as *implementation* and has the same range of dimensions. Including it indicates how scalable the service offering is and the effort needed to perform it. A shared dimension for all three metrics is *customer service only*, which was added because of the conclusions drawn if a company only uses customer service and does not require more complex services. It can be argued that the company has a less complex product that does not need to be upgraded, taught out to the customer, serviced or similarly regularly.

An understanding can be obtained, by assessing each metric, whether a target company successfully creates a revenue tail and how scalable the service is. Further, if a target company does not have a long revenue tail, these metrics can be used to decide what actions could be taken to create it.

The general characteristics for *service and implementation* were decided based on input from Company X and the literature. If the services and implementation are delivered on-premises, the software is less exposed to security threats, which is in accordance with Fisher (2018), resulting in the characteristic *less hackable*. Further, if the customer retains the responsibility and the services offered are in terms of customer service, the characteristics explaining it are *less responsibilities* and *generic services*. However, on the other side of the scale, a target company obtains responsibility for the service, usually involving *long term contracts and responsibility*. Further, as the services and implementation are delivered through the cloud, they are scalable and have *scalable service*. These together create *long revenue tails*.

5.1.5 Market

Rajala et al. (2003) and Schief and Buxmann (2012) mention the *market* as a factor to consider. However, in their model, they integrated the factor into *distribution*. Due to the factor being expressed as necessary by Company X and its multiple aspects, it made sense to include it as a separate area. Adding it as a separate area enabled the *market* to be divided into more detailed factors: *vertical niche*, *market shares*, *competitors*, and *barriers to entry*.

Company X and Young (2020) have the same definition of *vertical niche*. A company can either have no vertical niche or a deep one, which explains the dimensions used. Khurana (2018) argues that companies with a deep vertical niche act as specialists, which is what Company X, together with theory, expresses as desirable. Young (2020) expresses that it is desirable to have a deep niche and be specialists since

entry barriers protecting those companies often are more significant, thus protecting the companies profit margins. Therefore, a *vertical niche* is fundamental to take into account when assessing a target company.

Company X considers *market shares* similarly to how it is defined by Hayes (2021b). The dimension scale is ranging from 0 per cent of the market to 100 per cent. When evaluating a target company based on the market shares, it is essential to consider that the market shares a company constitutes can differ majorly depending on how the market is defined. Therefore, it is necessary to interpret it with cautiousness. Company X express that many target companies do not know their market shares. Therefore, if a company can not answer the question related to this factor, it should not reflect poorly on the company.

Assessing a company's *market shares* improves the understanding of the competitive landscape in which the company is active. If the target company has high market shares, it may be difficult for competitors to enter the market. On the other hand, if a company has low market shares, it demonstrates the potential for the company to grow and increase in revenue. However, to make any conclusions, the other metrics below need to be added to the equation.

According to Company X, it is essential to consider the *competition* when evaluating a target company. Grant (2016) and Company X similarly define competition. Competition is critical to consider because it can indicate the target company's current position in the market and how it may change in the future. According to Grant (2016) the competition was added to the model and whether the competition constitutes direct competitors or substitutes, where direct is regarded as a more significant threat. In addition to the type of competition, the number of competitors and their position on the market are considered, which is in line with what Grant (2016) mentions. If the competitors are superior or inferior, their position indicates the grip that the competitors have on the market, which is especially important to consider when assessing SaaS companies since it is difficult to compete with large software companies in a superior position (Aley, 2018; Arthur, 1996), thus putting the challenger in an inferior position. The dimension scale related to this factor ranges from a *high level of competition* to a *low level of competition*.

The way Hayes (2021a) defines *barriers to entry* is consistent with Company X's definitions. A company can be in a market safeguarded by many barriers or be in a market with no or few barriers, arguing for the dimensions on the scale. This metric is essential to assess according to Company X since it indicates whether a company's profitability is stable. The reason for including the metric in the model is confirmed by Hayes (2021a), who argues that entry barriers increase the possibilities to generate profit. Further, since the number of barriers either prevents or opens up for competitors to enter, one could argue that it is highly related to stability. In a market with high barriers, almost no competitor will enter, resulting in no drastic turns. However, in a market with few barriers, new competitors may enter, which changes a lot for a target company.

Taking all these metrics into account and adding them together enables conclusions drawn about a target company's current position in the market and how it may change in the future. The general characteristics are related to this. If a company does not have a deep vertical niche, low market shares, high competition, and low barriers to entry, it indicates that they are *market generalists* focusing on the broader market. Further, they are in an *inferior market position* compare to the rest of the market. If an investment strategy is to invest in smaller companies, one could argue that it is difficult to evolve from this position since the competitors may be superior and the company possesses a small market share. Then the company must be strong in another area. For example, they are either operating in a deep niche that makes them prominent in that market or has another attribute that makes it possible to compete with larger players.

The other side of the scale, where companies with a deep niche are positioned, symbolises that the companies are *market experts* and have high market shares, low competition, and high entry barriers. As seen in the model, high market shares are defined as market share above 40 per cent, which was set in collaboration with Company X. Reaching that level, *market leaders*, indicates a secure investment both in terms of the target company being a market leader. It is superior to the rest of the market and has high entry barriers, preventing new competitors from entering.

An investment strategy that focuses on target companies with deep vertical niches can be motivated because it often creates high barriers to entry. It usually prevents large companies from entering the market because the niche market is generally more limited and can not motivate the required time and resources needed to overcome the barriers. The lack of large companies in a market makes it easier to compete (Aley, 2018; Arthur, 1996), which result in a more stable competitive environment.

5.1.6 Organisation

The area *organisation* was not included in either model presented in theory by Rajala et al. (2003) and Schief and Buxmann (2012). It can be explained by the fact that their models are focusing on what differentiates a company's business models from another. In other terms, if customers become more or less willing to purchase from that specific company instead of its competitors based on the business model. However, one may argue that how an organisation is structured, which competence they possess, and how the competence is utilised majorly affects the company's performance, and therefore, relevant to analyse. Company X further confirms this as necessary. Included factors in the area are *marketing and sales strategy*, *competence*, *structure and processes*, and *dependence*.

Marketing and sales strategy was inspired by the area *distribution*, in theory, identifying a profitable market, the right customers, and reaching those customers through an effective sales channel (Rajala et al., 2003; Schief & Buxmann, 2012), a good *marketing and sales strategy* is needed. Since the factor was inspired by *distribution*, the factor was initially placed in the comparison area distribution. The reason for including it within the *distribution* is for two reasons. First, to differentiate *mar-*

keting and sales strategy from *sales focus*. Sales focus is more simplistic than sales strategy. Sales focus refers to whom a company chooses to distribute their products. Marketing and sales strategy is more complex, building on how much effort is put in by the organisation and if the organisation has constructed a successful strategy. Second, the dimensions of this factor align with the dimensions of the other factors within this area. Grouping them makes it easier to distinguish if a company has a good structure and strategies overall within the organisation. The dimensions used for *marketing and sales strategy* range from *bad strategy* to *well developed strategy*, which may be seen as even more arbitrary than other dimensions. Therefore, a separate table was included, explaining how to reach certain levels on the scale.

Marketing and sales strategy could also be divided into two strategies, as Barone (2021) and Riesterer (2019) do. However, in this model, it does not add any value. The reason is the type of companies analysed in this model. Software companies often operate online, and marketing is regarded as successful when a click results in a generated sale. Therefore, *marketing and sales strategy* is closely related to many software companies, and it is also coupled in this model.

In knowledge-intensive businesses, it is crucial to have access to competent and knowledgeable personnel (Invest Northern Ireland, n.d.). Therefore, it is vital to analyse if a company's competence is scarce or easy to access, which is essential to consider when evaluating a target company. Both assess the risk of losing competence in the company, recruit new personnel, and assess the possibilities of hiring the new personnel when required.

Even though *structure and processes* are difficult to assess, according to an employee at Company X, it does provide value to the model. According to Grant (2016), mature companies usually have developed efficient processes. In accordance with Company X, well-developed processes were set as preferable since they want to invest in mature companies. However, it is recognised that other venture capitalist firms have other strategies within this area. Therefore, it needs to be considered when using this model with other venture capitalist firms and adapting the levels to fit the firm's strategy. If a company does not have well-developed structures and processes, it is reasonable to conclude that it is a company that has not reached the maturity phase yet, still being in the introduction or growth stage (Grant, 2016).

Describing *dependence*, MassAnalytics (n.d.) explains that a company can be either *person dependent*, *process dependent*, or have a mix of the two. Company X does not include the process dependency but talks about dependency as if a company is either person dependent or not. To make the model more nuanced, the model includes a scale between *process* and *person* dependency. One could argue that a reason for not discussing process dependency is that the focus is avoiding investing in person-dependent companies because person dependency implies a risk, especially for a company changing ownership. There is a greater risk that employees leave a company in times of changes, even if preventive measures are taken or the changes result in improvements for all parties. Therefore, process dependent is set as preferable instead of person dependant.

The general characteristics for the area are straightforward, ranging from *improvement potential* to *well developed*, and it is in a *good position* looking internally. Even though a well-developed and good position is preferable, one can also see the good in knowing which area needs improving. Suppose that there is a will to improve; having identified the area that needs improvement is the first step towards reaching one's goals.

5.2 Reassuring proper use of the model

In this section, a few uncertainties and pitfalls identified during the process of creating the model are discussed. These are areas where no better solution than the ones in the final model has been identified. Therefore, this section aims to ensure that any uncertainties are pointed out and given guidelines for handling them.

The first area is the fact that the dimension scales are not rated. It is crucial to bear in mind when using the model. The reason for not rating the scales is that the model should grasp the whole picture of a company. Conclusions should be drawn based on the profile and the relationship between the metrics. Instead of rating the dimensions, it is vital to learn how to interpret the model and find patterns. For example, as mentioned above, if contract lengths are short but there are high switching costs and low competition, the value of high contracts is still reached, showing the importance of grasping the whole picture instead of each metric by itself. Therefore, it is vital for the person using the model to know the model's purpose and not get too influenced by each metric.

Another essential aspect to consider in the evaluation process is how time and resource consuming it is. Venture capital firms continuously evaluate companies, making it crucial that the model is easy to use not to waste resources. In addition to the model, clarifying tables were designed to make the evaluations more objective and, as a result, more comparable. These tables were mainly designed to create a common ground to base the assessment so that all users of the model can reach the same conclusion. However, it may initially slow down the process, but the idea is that when the users are familiar with the model, they can perform the work without using the tables. By then, the time and resources needed to complete an assessment using the model will be reduced.

In *the model for external use*, the general characteristic needs to be used with some cautiousness. The reason is, as the name reveals, that the characteristics are general. Therefore, it is essential to understand that the characteristics may not describe each target company suitably and satisfactorily. A company is much more than what is expressed in the general characteristics. To avoid making incorrect assumptions, it is vital for the person evaluating to understand the company beforehand.

5.3 Method reliability

In this section, some of the methods used in the study are discussed to enhance the validity of the methods used for the mapping and the number of interviews conducted.

Many aspects in this thesis are subjective, which is critical because these aspects can be interpreted differently depending on the receiver. For example, the requirements used to identify companies in the mapping were subjective. However, this did not affect the validity of the thesis because of how the information gathered was used. The purpose of the mapping was to gather a wide range of different business models used by software companies, not to map all business models used. The business models were mainly used to initiate discussions about essential factors to consider when making an investment decision. The research question was elucidated using a collection of this information and information gathered from Company X.

In the mapping of software companies' business models, a ranking system was created to create a perception of how far the listed companies had progressed in becoming SaaS companies. This ranking is highly subjective but was still argued to create value since it indicated the differences between traditional software and SaaS companies. One critical factor in the ranking system was the level of recurring revenues each company had. At this point, the recurring revenue was used in terms of how it is defined in the literature. However, as the research proceeded, it became clear in the interactions with Company X that they had a different definition, which considered more revenue streams as recurring. Based on the new insights, the ranking of software companies may have been different such that more of the listed companies would have reached a higher level in the ranking. However, due to the shifted research's focus, the purpose of the mapping was focused on gathering factors and getting a better understanding of software companies' business models.

The numbers of interviews held to collect data were counted to be five, initial interview and two rounds of interviews with two persons in each round. Some may argue that performing five interviews is too few. However, since Company X is a small organisation, it limits the possibilities to gain new insights. Further, it became apparent during the second round of interviews that many of the areas and metrics were already satisfactory. It implies that more interviews would not have resulted in any significant changes. Instead, it was argued that the model should be put into work to identify how it further can be developed. In the current state, one could argue that the model is as developed as it could get by doing it in an isolated environment instead of in the actual work.

6

Conclusion

With a combination of theory, mapping of software companies, a workshop and interviews with Company X, several attributes were identified as critical to analyse when investing in SaaS companies. The main attributes are KPIs, product strategy, revenue strategy, distribution, service and implementation, market, and organisation. Based on this thesis, it is concluded that the main attributes are general and can be applied when analysing all types of software companies. However, the metrics are more specific to SaaS and can vary between what types of companies are analysed and the purpose of the analysis. The development of the attributes contributes to the research by Rajala et al. (2003).

The contribution up until now has resulted in a way to do a comprehensive analysis of a company that structures the process, makes it less subjective, shows the company's SaaS potential, and provides guidance to investment decisions. Objectiveness is reached by evaluating each metric separately before creating an opinion regarding the whole company. By dividing the collection of information from the analysis process, the risk of the one process influencing the other decreases. The model created in this thesis makes it possible for the user first to collect the information, visualise it in the model, and then get a comprehensive summary of the information, which can guide an investment decision. Furthermore, by defining the metrics and assign dimensions, there is an approach to perform the analysis similarly every time, regardless of who performs it. Although this thesis shows the difficulties with making an analysis that takes soft metrics into account completely objective, this is a way of reaching a higher degree of objectivity.

Additionally, a complete analysis of a company indicates if they have a SaaS business model, if it can easily be transformed into one, or if an extensive amount of resources must be allocated to reconstruct the business model to offer SaaS. Guidance to investment decisions is provided by presenting the user with a better overview of the information collected about a company compared to if the information was presented in running text. Multiple attributes are compiled into one model, and factors depending on each other can be considered. The analysis of the company is visualised in the model, and conclusions can be made of the company's SaaS potential, making it easier to get a correct perception and better prediction of the company's future potential when deciding if a company is a good investment.

We also created a perspicuous model, a *model for external use*, that can be used to communicate the analysis of a company. It was achieved by simplifying the model for internal use and removing detailed information. This way, a more perspicuous model was created, and the risk of information overflow was decreased. The purpose of the model is not to understand a target company in-depth by only looking at this model. Instead, the value of the perspicuous model is to describe a company's strategy in a structured way and create a story about the company.

6.1 Next steps

In this section, future research and development of the model and practical implications are included. The suggestions for future research builds upon the discoveries in this thesis. These are areas that, because of time limitations, was not possible to include in this research. The development of the model is covered to promote researcher or practitioners interested in this subject to continue developing the model. The practical implications discuss different outcomes of implementing this model practically.

6.1.1 Future research and development of the model

The model created has been developed in a limited context. Except for theory, one venture capital firm's investment process and strategy have been analysed and taken into consideration. Therefore, one potential future investigation is to apply this model in another venture capital firms setting and adjust the model after insights gained from that firm.

Many of the metrics included in the model are subjective. Since subjective metrics are difficult to measure, they are also more challenging to evaluate. A possible solution to make this evaluation process even more objective is to establish standards for different industries used as a baseline when evaluating companies. It would enable the comparison of target companies and the whole market and create a perception of the target company's performance. Potential future research could be to establish these standards for different industries. Having established standards as a complement to this model would add additional objectivity to the evaluation process.

6.1.2 Practical implications

This section is divided into practical implications for Company X and venture capital firms in general. Since the model was developed in collaboration with Company X, knowledge about Company X's investment strategy was obtained, making it possible to give hands-on suggestions for practical use of the model to Company X. General and practical suggestions to other venture capital firms using the model is not possible, and the model does not build on a specific investment strategy.

6.1.2.1 For company X

The model for internal use is closely related to the question battery that Company X sends to its target companies. The model has to some extent, been developed based on the previous question battery. However, the created model has evolved beyond the questions asked in the current battery. Due to the question battery being the source of the collected data it needs to be updated according to the new comparison area, comparison metrics, and dimensions.

According to Company X's strategy, they want to reach the dimensions to the right, which is closely related to SaaS companies. However, Company X is not solely investing in companies that have reached that level. Target companies close to the right with completely developed SaaS are usually valued much higher than traditional software companies. It implies that investing in a company before it turns into SaaS can become an attractive investment. However, identifying companies before turning into SaaS is challenging. Therefore, the model can be used to help Company X identify these companies. It can further help Company X understand what is standing in the way of a target company becoming a SaaS company. By looking at each comparison area, Company X can get an idea of what needs to be addressed to develop the company further. These insights are beneficial to have when the investment is made to decrease the risks. Both for Company X to know what to expect and know what resources will be needed, enabling the work to begin immediately at entry. Company X can easily dedicate the right resources to the company entering the group to improve its performance and increase the value of Company X's holdings.

Due to Company X possessing particular expertise, it is more suitable for them to invest in target companies with a need to develop certain areas. For example, a company with software compatible with SaaS with a revenue strategy that needs to be changed is a more suitable investment target because Company X's possessed the knowledge of how to transform a charging model. However, they do not currently possess any knowledge about how to improve the software. Therefore, investing in a company where all factors are located to the left is not suitable because it would require too much work from Company X to transform it into a company aligned with its strategy.

Even though the model has been tested with several of Company X's target companies, it has not been used in the context of its purpose. It implies that the model may require updates when it has been implemented into an investment process. Therefore, the model must be continuously improved based on newly gained insights. Further, if Company X changes their strategy, the model may need to be updated according to the change. Considering the phase Company X is currently in, the model is designed to be easy to change and potentially add or remove parts following Company X's development.

6.1.2.2 For venture capital firms in general

All factors used in the model is, to some extent, based on the theory. It indicates that the model easily can be applied to different venture capital firms that want to invest in SaaS companies. However, one could argue that it is beneficial if companies using the model have similar investment processes as Company X, that is, to have an initial screening first. The reason is that this model is focused on soft metrics and more in-depth factors that require more information. If this model is used independently, there is a risk that other vital parts are forgotten, such as more quantifiable measures.

Currently, the model is constructed to be applied to software companies that may have the potential to become SaaS companies. If the model is put in a new context with other target companies, the model may need to be changed. Since the model does not include a specific ranking, it can be used to find more traditional software companies. However, it is vital to bear in mind that some comparison metrics and dimensions may be less valuable in that case. In such a situation, all the comparison areas can remain since they constitute a business model; however, the comparison metrics and dimensions should be updated if necessary.

6.2 Value created for Company X

Since this thesis was developed in collaboration with Company X, the purpose has been to put the findings into use. This thesis has created value for Company X since they now have a structured way to perform their evaluation process. Instead of having arbitrary definitions and thoughts that were understandable only between the employees, they now have an "on paper" model that gathers and expresses their thoughts. Compared to previously being people dependent, they can now move towards becoming more process dependent.

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A

Appendix

A.1 Companies in mapping

Selected companies
Addnode
Anoto
Beijer Electronics
Empir Group
Enea
Evolution Gaming
Formpipe Software
Gaming Innovation
Hexagon
HMS Networks
I.A.R Systems
Image Systems
Lime Technologies
Micro Systemation
Net Insight
Ortivus A
Precise Biometrics
Proact IT
RaySearch Laboratories
Sectra
Sensys Gatso
Sinch
Studsvik
TradeDoubler
Vitec Software
ZetaDisplay

Table A.1: *Companies included in the mapping*

A.2 Factors identified

Group	Mapping	Company X
KPI	Customer per employee	
	Revenue	
	Revenue per employee	
	Profit (EBITDA	
	Profit margin	
	Profit per employee	
	Recurring revenue	
	Recurring revenue of total revenue	
	Annual recurring revenue	
	Operating expenses	
	Personnel costs	
	Total assets	
	Intangible assets	
	Software assets	
	Balanced development expenses	
	Length of contracts	
Mention	X as a Service	
	Cloud based	
	Scalability	
	Adaptability	
	Customized	
	Integratable	
	Production	
	Complex problems	
	Add-ons/modularity	
Descriptive	Product	
	Business Areas	
	Customer type	
	Customer industry	
	Geographical market	
	Value chain	
	Competitors	
	Sales method	
	Future focus	
	Customers needs own servers	
	Additional products needed	
	Niche market	
	Challanges	

Table A.2: *Factors identified through the mapping and Company X*

A.3 Descriptions of rankings used to rank SaaS companies

Ranking	Description
1	Majority of the business is offered as SaaS. No hardware exists.
2	Have started to offer their products as SaaS. No hardware exists.
3	The product is fully compatible to offer as SaaS, but it is not implemented. No hardware exists.
4	Have one business area that offers their product completely as SaaS. Other business areas use hardware.
5	Have started to offer the product as SaaS. Some, but not all, products are dependent on hardware.
6	Have areas that could be offered as SaaS, which are not at the moment. The product is dependent on hardware.

Table A.3: Descriptions of rankings used to rank SaaS companies

A.4 Definitions of metrics

Comparison Area	Comparison Metrics		
PRODUCT STRATEGY	Product offering		To which extent the product is developed to suit a specific customer or more generally to be used by multiple customers.
	Add-ons & modularity		The variety from which a customer can choose different modules or add-ons to customize the product to suit their needs.
	Development responsibility		Which entity who has the responsibility of developing the product and who executes the development process.
	Horizontal niche		To which extent the focus lies on a specific product, system or function.
REVENUE STRATEGY	Revenue streams		The method which the customers are charged for a software or additional service.
	Recurring revenue (%)		The proportion of revenue generated through software (license, subscription, transaction based) and functional (support, maintenance) agreements.
	Contract length (months)		The time period that a contract is legally binding for both parties.
DISTRIBUTION	Sales focus		To which extent focus lies on acquiring new customers versus focusing on extending and grow existing accounts.
	Sales cycle length		The amount of time that passes between first touch with a prospective customer and the closing of the deal.
	Customer concentration		How large ratio of the revenue during a year that is a result of the largest customer.
SERVICE & IMPLEMENTATION	Implementation		To which extent different methods are used to make the software accessible to the customer after the software is purchased.
	Service	Responsibility	Where the responsibility lies of updating the software or supplying support to a user if a question arise or problem occurs with the software.
		Payment structure	The agreed upon payment structure for services. If it is free, paid at the time of service, monthly or a combined structure.
		Execution	To which extent services is provided and delivered on premises or remote through non-physical medium.
MARKET	Vertical niche		To which extent the focus lies on a specific market, industry or type of customer.
	Market share (%)		How large proportion of the market the company possess within their horizontal or vertical niche.
	Competitors *		How competitive the market is in terms of number of competitors, how strong presence they have and if they are direct or indirect competitors.
	Barriers to entry *		How many barriers that prevent other companies from entering the market and becoming competitors and how strong they are.
ORGANIZATION	Marketing & sales strategy *		How well developed the strategy that generates sales is and the effort needed to generate a satisfactory output in sales.
	Competence availability		To which extent availability of competence limits a business.
	Structure and process *		How well structured different processes in the business are.
	Dependence		To which extent operations are dependent on people or processes to function.

A.5 Different versions of the model for internal use and how they have changed

Product Strategy				
Customised product/solution	Product platform	Uniform core product	Modular product family	Standardized on-line service
Revenue Logic				
Effort-, cost, or value based pricing	Revenue sharing	License sales and royalties	Other. eg loss-leader pricing	Recurring Revenue
Distribution				
Distributor	OEM model	Reseller or agent model	Direct sales	
Services and Implementation				
Customer-specific system work	System integration projects	Software deployment	On-line services	

Figure A.1: *Version 1*

Change in model: No changes

		1	2	3	4	5
KPI	Customers/employees					Max score
	Employees/majority owners	<5	5-9	10-14	15-20	>20
Product Strategy	Offering	Customized	Product platform	Uniform core product	Modular product family	Standardized
	Add-ons/modularity	Non				Many
	Complexity	No			Yes	
	Horizontal niche	No			Yes	
	Revenue streams	Per project		Per time unit	Transaction based	Monthly subscription/license
Revenue strategy	Recurring revenue %	<20	20-39	40-59	60-79	>80
	Contract length	<3	3-6	7-12 months	13-18	>18
	Sales method	Distributor	OEM	Reseller or agent	Mixed (direct included)	Direct
Distribution	Customer concentration	High			Low	
	Marketing method	Small scale - personalized		Small scale - standard	Large scale - personalized	Large scale - standard
	Implementation	On prem/installation			Cloud based	
Service & Implementation	Service	Responsibility	Customer service		Customer manage themselves	Full service contract
		Payment structure			Free of charge	On demand
		Executed			Remote	On prem
Market	Vertical niche	No				Yes
	Market share	Min score				Max score
	Competitors	Min score				Max score
	Entry barriers*	<1	1	2	3	>3

Figure A.2: *Version 2*

Change in model:

Factors by Rajala et al. (2003) is removed.

The design of the model is developed.

Comparison areas *KPI* and *Market* are added (first column).

Several comparison metrics are added (second column).

Dimensions are added to each comparison metric (following columns).

Comparison Area	Comparison Metrics					
PRODUCT STRATEGY	Product offering	Customized				Standardized
	Add-ons & modularity	Limited selection				Wide selection
	Development	Externally sourced				Internally built
	Horizontal niche	No				Deep
REVENUE STRATEGY	Revenue streams	Per time unit	Per project	Transaction based	License	Subscription
	Recurring revenue (%)	<20	20-39	40-59	60-79	>80
	Contract length (months)	<3	3-6	7-12	13-18	>18
DISTRIBUTION	Sales approach	New customers	Equal focus new & old	Reconnect to lost accounts	Upsales	Extend existing contracts
	Customer concentration	Low				High
	Marketing & Sales strategy	Bad strategy	No strategy	Coincidence	Resource dependent	Well developed strategy
SERVICE & IMPLEMENTATION	Implementation	On prem installation				Cloud based
	Service	Responsibility	Customer			Full service provided
		Payment structure	Free of charge	Variable fee	Monthly+variable fee	Monthly fee
		Executed	On prem			Remote
MARKET	Vertical niche	No				Deep
	Market share (%)	<20	20-39	40-59	60-79	>80
	Competitors	Strong competition	Present threats	Present substitutes	Potential threats	Weak competition
	Barriers to entry (#)	<2	3-4	5-6	7-9	>9

Figure A.3: *Version 3*

Change in model:

The design of the model is developed.

Comparison area *KPI* is removed.

The ranking of the dimensions (top row) removed.

Comparison Area	Comparison Metrics					
PRODUCT STRATEGY	Product offering	Customized				Standardized
	Add-ons & modularity	Limited selection				Wide selection
	Development responsibility	ÄNDRA				ÄNDRA
	Horizontal niche	No				Deep
REVENUE STRATEGY	Revenue streams	Per time unit	Per project	Transaction based	License	Subscription
	Recurring revenue (%)	<20	20-39	40-59	60-79	>80
	Contract length (months)	<3	3-6	7-12	13-18	>18
DISTRIBUTION	Sales approach	Extend existing contracts	Upsales	Reconnect to lost accounts	Equal focus new & old	New customers
	Customer concentration	High/need to decrease				Low/need to increase
SERVICE & IMPLEMENTATION	Implementation	On prem installation				Cloud based
	Service	Responsibility	Customer			Full service provided
		Payment structure	Free of charge	Variable fee	Monthly+variable fee	Monthly fee
		Executed	On prem			Remote
MARKET	Vertical niche	No				Deep
	Geographical diffusion	Sweden	Nordic countries	Some of europe	Europe	World wide
	Market share (%)	<10	10-19	20-29	30-39	>40
	Competitors	Strong competition	Present threats	Present substitutes	Potential threats	Weak competition
	Barriers to entry (#)	<2	3-4	5-6	7-9	>9
ORGANIZATION	Marketing & Sales strategy	Bad strategy	No strategy	Coincidence	Resource dependent	Well developed strategy
	Structure and processes	Ad-hoc				Well developed
	Dependence	Person				Process

Figure A.4: *Version 4*

Change in model:

Comparison area *Organisation* is added.

A. Appendix

Comparison Area	Comparison Metrics	I	II	III	IV	V
PRODUCT STRATEGY	Product offering	Customized				Standardized
	Add-ons & modularity	Limited selection				Wide selection
	Development responsibility	Externally sourced				Internally built
	Horizontal niche	No				Deep
REVENUE STRATEGY	Revenue streams	Per time unit	Per project	Transaction based	License	Subscription
	Recurring revenue (%)	<20	20-39	40-59	60-79	>80
	Contract length (months)	<3	3-6	7-12	13-18	>18
DISTRIBUTION	Sales focus	Extend existing contracts	Upsales	Reconnect to lost accounts	Equal focus new & old	New customers
	Sales cycle length	>6 months	4-6 months	1-3 months	<1 month	Instantaneous
	Customer concentration	Above preferred level				Below preferred level
SERVICE & IMPLEMENTATION	Implementation	On prem installation				Cloud based
	Service	Customer service only	Customer			Full service provided
			Free of charge	Variable fee	Monthly+variable fee	Monthly fee
			On prem			Remote
MARKET	Vertical niche	No				Deep
	Market share (%)	<10	10-19	20-29	30-39	>40
	Competitors	High level of competition	Present threats	Present substitutes	Potential threats	Low level of competition
	Barriers to entry (points)	<2	3-4	5-6	7-9	>9
ORGANIZATION	Marketing & sales strategy	Bad strategy	No strategy	Coincidence	Resource dependent	Well developed strategy
	Competence	Scarce				Available
	Structure and processes	Not structured				Structured
	Dependence	Person				Process

Figure A.5: Version 5 - Final version

Change in model:

- A subtle ranking is added to the dimensions (top row).
- Sales cycle length* is added as a comparison metric to *distribution*.
- Competence* is added as a comparison metric to *organization*.

Comparison Area		Comparison Metrics											
PRODUCT STRATEGY	Product offering		Customized products										
	Add-ons & modularity												
	Development responsibility		Product generalists										
	Horizontal niche												
REVENUE STRATEGY	Revenue streams		Effort based revenue Project based contracts										
	Recurring revenue												
	Contract length												
DISTRIBUTION	Sales approach		Focus on new accounts Low customer dependence										
	Customer concentration												
	Marketing & Sales strategy		Improvement potential										
SERVICE & IMPLEMENTATION	Implementation		Less hackable Generic service Less responsibilities										
	Service	Responsibility											
		Payment structure											
		Executed											
MARKET	Vertical niche		Market generalists Inferior market position										
	Market share												
	Competitors												
	Entry barriers												

A. Appendix

Comparison Area	Comparison Metrics		General Characteristics					General Characteristics	
PRODUCT STRATEGY	Product offering		Customized products						Scalable products
	Add-ons & modularity								
	Development responsibility		Product generalists					Product experts Deep product niche	
	Horizontal niche								
REVENUE STRATEGY	Revenue streams		Effort based revenue Project based contracts					Predictable & secure revenue Long term contracts	
	Recurring revenue								
	Contract length								
DISTRIBUTION	Sales approach		Focus on new accounts Low customer dependence					Focus on existing accounts Low CAC	
	Customer concentration								
SERVICE & IMPLEMENTATION	Implementation		Less hackable Generic service Less responsibilities					Scalable service Long term contracts & responsibilities	
	Service	Responsibility							
		Payment structure							
		Executed							
MARKET	Vertical niche		Market generalists Inferior market position					Market experts Deep market niche Market leaders	
	Geographical diffusion								
	Market share								
	Competitors								
	Barriers to entry								
ORGANIZATION	Marketing & Sales strategy		Improvement potential					Well developed	
	Structure and process								
	Dependence								

Figure A.7: Version 2

Change in model:

The design of the model is developed.

The headings *General characteristics* are added.

Crescents are replaced by circles.

Lines are removed between circles.

Comparison Area	Comparison Metrics	General Characteristics	I	II	III	IV	V	General Characteristics
PRODUCT STRATEGY	Product offering	Customized products	○					Scalable products
	Add-ons & modularity							
	Development responsibility	Product generalists	○					Product experts Deep product niche
	Horizontal niche							
REVENUE STRATEGY	Revenue streams	Effort based revenue Project based contracts	○					Predictable & secure revenue Long term contracts
	Recurring revenue							
	Contract length							
DISTRIBUTION	Sales focus	Focus on existing accounts High customer dependence High CAC	○					Focus on new accounts Low customer dependence Low CAC
	Sales cycle length							
	Customer concentration							
SERVICE & IMPLEMENTATION	Implementation	Less hackable Generic service Less responsibilities	○					Scalable service Long term contracts & responsibilities Long revenue tail
	Service	Responsibility						
		Payment structure						
		Execution						
MARKET	Vertical niche	Market generalists Inferior market position	○					Market experts Deep market niche Market leaders
	Market share (%)							
	Competitors							
	Barriers to entry							
ORGANIZATION	Marketing & sales strategy	Improvement potential	○					Well developed Good position
	Competence							
	Structure and processes							
	Dependence							

Figure A.8: Version 3 - Final version

Change in model:

The design of the model is developed.

Descriptions for general characteristics are developed.

A.7 Questions

Questions asked during the initial interviews

- How is your organisation structured?
- How many people is currently in your organisation?
- What is your business plan?
- What are your organisational goals?
- What differentiate your business from your competitors' businesses?
- How is your investment process structured?
- How do you identify potential investments?
- What type of companies do you want to invest in? Why?
- What is common characteristics of a target company?
- What are your requirements for investing in a company?
- What is your strategy after an investment is completed?
- What parts of your work today is challenging?
- Do you have any plans for what to develop next? If yes: what?
- What are your expectations of this collaboration?

Questions asked during the workshop

- What factors are important to take into account when making an investment decision?
- What was the most important aspect in your last investment?
- What characteristics were it that made you invest in that specific company?
- How do you define the factors?
- What level do you wish to achieve within in factor?
- Were there any parts of the company that you wished would have been better?
- What is the first thing you will improve in the company?
- Have you learned anything new about SaaS or software companies as a result of this investment?

- Which factors are the most important factors to consider when investing in a company?
- How would you rank the factors considered, according to importance?

Questions asked during the interviews

Before showing the model:

- Which factors did you analyse during your last investment analysis?

After presented the model:

- What is your first impression of the model? Design? Overview? Structure?
- Are there factors that are difficult to understand?
- Would it be possible to gather data about all factors to put a value on the scale?
- How do you evaluate these factors today?
- Thinking about the last investment, are there any factors the model does not take into account that you analysed?



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