Risk

Checklist

M&A

Strategy

Software Business

Mergers

Due Diligence

Acquisitions

Deal Breakers

Karl Michael Popp

Mergers and Aquisitions in the Software Industry

Foundations of due diligence

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Dedicated to the loved ones of the author

For Carolin, Anike and Ferdinand

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Quote

"The most active and successful technology M&A acquirers pursue extensive due diligence to assess the potential risks of a particular acquisition.
This includes a detailed review of a potential target's products and underlying technology, customer/partner opportunities, contracts & obligations, assessment of the target's employees, and a detailed review of a company's business model & financial position, among other areas.

Many acquirers will have very large teams and a highly structured way to go about this process, which (along with the large volumes of information that is typically requested) creates a very demanding and time consuming process for a potential seller.

So potential targets need to prepare for this process well in advance of receiving an LOI by gathering the key due diligence information and populating a data room that an acquirer can look at on "Day 1" of the diligence process.

Advance preparation can streamline the due diligence process and sends a strong signal to the acquirer that the target is serious about getting a transaction done."

Scott Card

Scott Card is a partner in the Investment Banking group at AGC Partners, focused on enterprise infrastructure, including storage, cloud/virtualization, big data, and security. In his 18+ years as an investment banker, Scott has completed more than 50 mergers and acquisitions (M&A) and equity/debt financing transactions. Prior to joining AGC Partners, Scott was part of Deutsche Bank Alex. Brown's Technology Investment Banking Group in Boston, Associate in Mergers & Acquisitions at SBC

Warburg and an Analyst in the Financial Institutions Group at Merrill Lynch & Co.

1. Introduction

1.1 Why this book

Goal of this book is to provide you with key knowledge and skills for successful due diligence in the software industry. You will learn about the M&A process, M&A organization, due diligence coverage, due diligence hacks and specifics of the software industry, like business models, software ecosystems and partnership models.

For me to write this book, there are three reasons: Recent business modeling knowledge is not represented in M&A books, increasing presence of software in consumer goods creates the demand for software M&A knowledge in all industries and merger integration is not covered well as a strategic goal of and in activities in due diligence.

Business modeling knowledge desperately needed

In M&A literature i did not find recent information systems research and business modeling represented there. In addition, the specifics of the software industry like software business models and software ecosystems, are not covered sufficiently.

Software is everywhere

With the increasing proliferation of software in all kinds of goods it is paramount to gain insights into the specifics of the software industry and how we do proper due diligence of software companies and software products. This is what this book is dedicated to.

Merger integration as a goal in due diligence

Successful acquirers start early with planning the integration and look in detail at merger integration risk. Starting early means that during due diligence, integration planning and integration risk management activities are executed. This book shows how the integration related activities are done in due diligence to ensure integration success.

Discuss and share your feedback at http://www.mergerduediligence.com.

Follow me on twitter @karl_popp. https://twitter.com/karl_popp

Connect with me on linkedin: de.linkedin.com/in/drkarlmichaelpopp/

1.2 Goals of this book

This book series has four simple goals:

> Goal #1: This book tries to create a holistic view of mergers and acquisitions in the software industry and to introduce post merger integration planning as an integral part of due diligence of software companies.

A holistic view allows to find analogies and differences between companies in the software industry, but also between companies in the software industry and other companies.

A holistic view needs a holistic model, where popular views like finance, controlling, commercial views are just projections of the holistic model.

We will use a business modeling approach to reach the goal. We will present typical partnership models and delivery

models, which will allow us to identify analogies between different companies, partnerships and delivery models.

> Goal # 2: This book tries to point out the key differentiators of the software industry to other industries, like

- ❐ Products and services,
- ❐ Business models,
- ❐ Ecosystem strategies,
- ❐ Intellectual property management and
- ❐ Frequency and speed of disruption and technological innovation.

> Goal # 3: This book tries to lay the foundation for standardization of due diligence activities for software companies and to build a foundation for successful post merger integration planning in the due diligence phase.

If we reach these goals in this book and in our profession, we get closer to sustainable post merger integration results and to a higher likelihood of success of M&A activities.

> Goal #4: This book focuses on aspeccts of business models and software industry specifics for due diligence.

In this book we will get very deep into new and software specific aspects like business models, ecosystems and intellectual property due diligence. As a consequence, we will leave details on financial, tax, IT and HR due diligence to other books and authors.

1.3 A big thank you

I would like to thank you for buying this book. Many people have helped in gathering the knowledge that is the foundation of this book. First and foremost, I would like to thank my colleagues in the SAP corporate development team. I love to work with them on M&A projects as well as improvements of the M&A process. The work with them is fun and a continuing inspiration to make things better. In addition I would like to thank my colleagues from the Global Licensing department at SAP AG for working with me on open source and third party related due diligence activities.

Another big thank you goes to my colleagues that work together with me on a curriculum for a master study on post merger integration. They come from german companies Beiersdorf, EON, Deutsche Bahn, Siemens, Dekra, Bosch, to name a few. The meetings and discussions with them allowed me to testdrive a lot of my ideas. Also, many thanks go to Dr. Josef Waltl for giving me advice on providing short summaries for each chapter.

In addition, cudos go to Ralf Meyer of Synomic, one of the finest consulting companies for software companies. He is a great supporter of my work and has offered to make this book part of the Synomic academy.

Last but not least I would like to thank my wonderful family and my friends for supporting me in this effort.

1.4 Chapters of this book

Let us quickly run through the contents of this book.

Economic foundations

This section introduces research results from information systems research about modeling of companies as business systems and its application to mergers and acquisitions.

Since this knowledge has not been used on M&A, I am trying to make you aware of this recent development.

Foundations of mergers and acquisitions

This chapter introduces key terminology and characteristics of mergers and acquisitions and explains how companies setup up organization and processes to execute mergers and acquisitions. I will take a constructive approach and provide concise definitions to make sure you understand the details.

Foundations of due diligence

Due diligence is a task within the M&A process. In this chapter the task is defined and different types of due diligences are presented. Then, due diligence is analysed being a modeling activity. This allows to find some blind spots and typical sources of trouble in due diligence and post merger integration and gets you prepared for running due diligence.

Handling risks in merger due diligence

Since M&A projects have a bad reputation due to many failures, risk detection and management is an important task. In this section, we learn a new approach for detection of risk and get to know how risks are handled afterwards.

Foundations of the software business

This section gives you important insights into the intrinsics of the software business. It shows which business models and revenue models are part of a software vendor´s business and which other patterns of business like delivery models exist in the software business. We will use these patterns to attach typical success factors, risks, goals to

these patterns for due diligence. We will also drill into IP Due diligence and specific risks in software business models.

Foundations of software ecosystems

One special aspect of software vendors is their ecosystems of suppliers and partners and customers. This section shows which types of software ecosystems exist and how they are leveraged by software vendors to create revenue and extend their solution offering.

Partnership models in the software industry

From resell to revenue share and online solution marketplaces there are many different types of partner relationships. Each of these relationships can make sense for a software vendor.

1.5 Hacking due diligence: a fun introduction

Please take the content of this section seriously. It sounds funny, but it is derived from the experience of many due diligences.

Due Diligence Rule 1: Everybody lies.

No kidding, enough tell tales in this world. Getting as much hard facts as possible, is the most important rule. If somebody tells you to cross the road with closed eyes, fine. You better check the facts.

This rule courtesy of Dr. Gregory House. This time, watching TV made a lot of sense.

Due diligence Rule 2: break them before they break you

Set M&A deal breakers to sleep. identify from catalogue of 50 deal breakers. attack, put to sleep, done.

Due Diligence Rule 3: Maximize the likelihood of success.

Do you recall statistics? you don´t know the distribution, so 50 percent chance of success is the maximum likelihood best guess. work your way up! get the key success factors during due diligence and monitor them frequently.

Due Diligence Rule 4: Minimize deal risk and find sleep

Identify from a catalogue of 200 risks during due diligence. Identify, mitigate, monitor, done. For some risk: sell them to insurance companies and have somebody else loose their sleep.

Due diligence rule 5: Make your day. Blueprint.

What will life be like on day one? What are the steps/changes/challenges in the first 100 days? What are the goals 12/18/24 months from now? When will integration be done? You better know it. Blueprint it at the end of due diligence!

Due diligence rule 6: Look in the mirror (not the rear view mirror, stupid!)

Look at yourself (the acquiring company) in due diligence. What happens to the acquiring company due to the impact of the acquired company? Will the workload of the post merger integration hit too hard? What will the efforts be? You better use the results of due diligence to determine the impact and plan additional resources.

Due diligence rule 7: Safeguard your property

So you are acquiring intellectual property. Great. But do you really own it? Can you really monetize it later? Run IP Due diligence to check all intellectual property of the target. If needed, establish additional IP rights. Then start monetizing post close.

Due diligence rule 8: You have all the facts. NOT.

The facts are transported. Somebody tells you facts, but forgot something. You hear the facts, but you are not sure you understood. Guess what is left from the original facts. NOTHING.

2. Economic foundations: Business Models

Financial modeling of businesses is around for a long time. Semantic business modeling is not. Since none of the semantic, graphical business modeling approaches has made its way into due diligence, this chapter tries to provide basics on this method for modeling businesses.

Having read this chapter you will own background knowledge about modeling businesses and about fundamental properties of businesses as systems. This knowledge will help you in due diligence to better cope with different businesses you analyze.

2.1 Analyzing companies as a model building process

Model building is a process of looking at the real world and creating a simplified view of the world. In this simplified view, we include assumptions about the real world and we omit some of the complexity of the real world. Many different abstraction mechanism can be applied to the real world when building the model. One important one is type building. Another one is omission. So if we look at a company to be acquired, we might just look at the employees to serve the purpose of human resources due diligence.

Looking at software companies and building models of software companies, we will look at specifics that make software companies different from companies in other industries. First and foremost, software companies are companies that strive for commercial success by offering their products and services to the customers in their target markets. For doing that, they rely on suppliers to provide products and services to them.
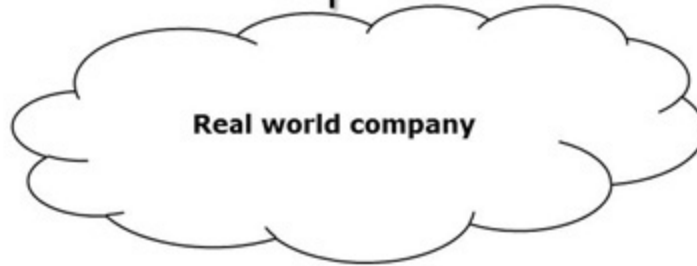
Model building
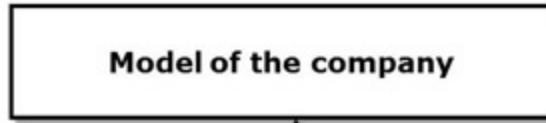
Figure 1: Model building

There are payments made to compensate for the products and services provided and received. From this viewpoint, there is no difference between a software company and companies in other industries, which allows us to leverage due diligence approaches from other industries to a certain degree. This viewpoint also allows us to identify the main differences to other industries and to define specific due diligence methods, processes and tools to address these differences.

Example

Figure 2 contains a simple model of a software vendor interacting with its environment. In this figure we omit other interactions of the software vendor with its environment, like with tax authorities, shareholders, patent holders etc. We also simplify the real world by looking at all suppliers and customers collectively in the model elements Suppliers and Customers.
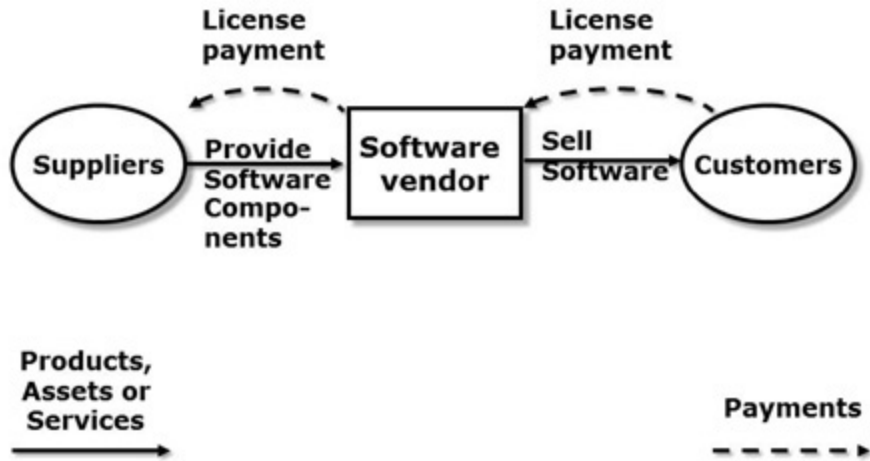
Figure 2: Simple model of a software vendor

2.2 Modeling companies as business systems

In this section we use an approach to look at companies as business systems. We are particularly interested in the structural and behavioral properties of business systems. The method presented here is based on [1] and extends and comments this approach.

Companies as business systems

The Semantic Object Model (SOM) is an approach for modeling of business systems and views a business system from a system theory viewpoint as an open, goal-driven, socio-technical system [1].

Openness of business systems

A business system is an **open system**, not closed, since it interacts with its environment by exchanging products, services and payments. Figure 3 shows the interactions of a software vendor with its environment.

Interactions of a software vendor as a business system
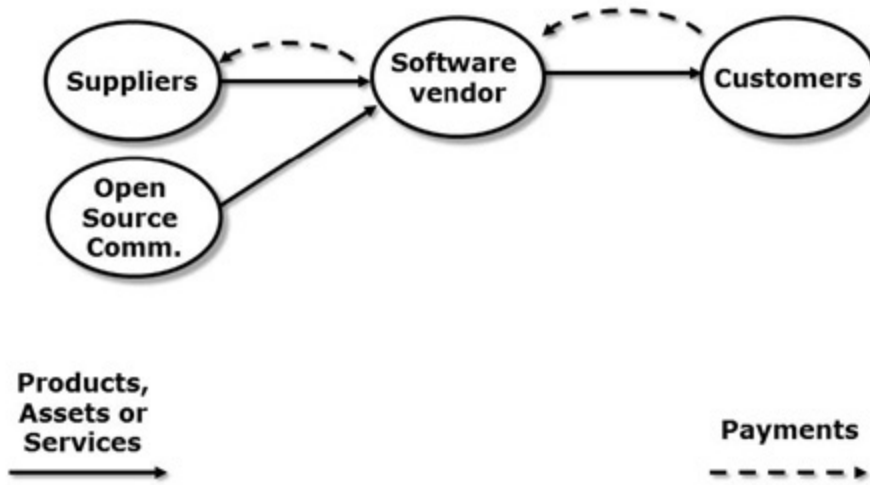
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Figure 3: Interaction of a business system with its environment

So what is the impact of openness? For a business system this means that business activities of entities outside of the business system have impact on the business system. Planning activities, like orders to suppliers, inventory management and other activities have to be coordinated between the business system and the outside entities. This makes planning tasks more complex and creates dependencies to entities outside of the business.

Example

In *Figure 3* the impact of openness can be as follows

❑ *The relationship to the open source community creates an opportunity in being able to use open source software, but it also creates a dependency, since the software vendor is relying on the open source community to deliver quality products on time.*

❑ *Using open source software creates a dependency to the license terms of the open source software used.*

❑ *The relationship with the customer creates dependencies, since the incoming customer orders have impact on fulfillment planning.*

❑ *The relationship with suppliers creates an impact on planning of software development activities since the software vendor assumes that the supplier will provide quality software on time and quality and coordination has to happen to create a joint schedule of software development activities.*

As recent research shows, openness can be advantageous, like in open innovation, where the openness of one company attracts other companies for increased business of both companies.