Corporate Divestitures: Towards Measuring the Success of IT Carve-Out Projects

Author: MARKUS BÖHM - Email: markus.boehm@in.tum.de
University: MUNICH UNIVERSITY OF TECHNOLOGY

Track: 39. Strategic Management General Track

Co-author(s): Georg Hansbauer (TUM - Technische Universität München / Chair for Information Systems)
/ **Sebastian Müller** (TUM - Technische Universität München / Chair for Information Systems)
/ **Jan Marco Leimeister** (Universität Kassel / Chair for Information Systems)
/ **Helmut Krcmar** (TUM - Technische Universität München / Chair for Information Systems / Chair for Information Systems)

Corporate Divestitures: Towards Measuring the Success of IT Carve-Out Projects

Böhm, Markus

Technische Universität München, Chair for Information Systems
Boltzmannstr. 3, 85748 Garching b. München, Germany, markus.boehm@in.tum.de

Hansbauer, Georg

Technische Universität München, Chair for Information Systems
Boltzmannstr. 3, 85748 Garching b. München, Germany, georg-h@gmx.net

Müller, Sebastian

Technische Universität München, Chair for Information Systems
Boltzmannstr. 3, 85748 Garching b. München, Germany, muellseb@in.tum.de

Leimeister, Jan Marco

Universität Kassel, Fachbereich Wirtschaftsinformatik
Nora-Platiel-Str. 4, 34127 Kassel, Germany, leimeister@uni-kassel.de

Krcmar, Helmut

Technische Universität München, Chair for Information Systems
Boltzmannstr. 3, 85748 Garching b. München, Germany, krcmar@in.tum.de

Track: 39 – Strategic Management

Subtrack: A - Corporate Strategy: Managing & Governing Alliances, M&As & Divestitures

Short title: Success Evaluation for IT Carve-Outs

Abstract: Acquiring and divesting business units are standard instruments of strategic management. Measuring the success of divestitures from a strategic perspective, utilizing capital market or financial statement oriented metrics is commonly found in scientific literature. However, it remained unclear how to adequately evaluate success on a process level (referred to as carve-out), as well as for non-financial objectives. By analyzing literature from different research domains (project management, outsourcing, M&A) and comparing these metrics to the objectives of carve-outs, gained by expert interviews, we propose measures that can be utilized to evaluate the success of both carve-out management (process perspective) and project outcome (product perspective). Hereby we argue that it is important to differentiate by the perspectives of the different stakeholders. Since it is not possible to provide a single metric we suggest different measures, addressing different aspects that shall provide a more comprehensive evaluation, indicating the success of a carve-out.

Keywords: Divestiture, Carve-Out, Project Management, Success, Measures

1　Introduction

Acquiring and divesting business units are standard instruments of strategic management (Kromer and Stucky 2002). Increased globalization and deregulation, external growth ambitions to capture new markets and protect existing market shares, a focus on the core business as well as value driven portfolio management are the key drivers of this development (Kaplan and Weisbach 1992; Jaeger 1998; Jansen 2007).

A divestiture is defined as a "firms adjustments of its ownership and business portfolio structure, via spin-off, equity-carve-out, split-up, or unit sell-off" (Brauer 2006). However, with the term carve-out we refer to the operational activities needed to divest and separate a part of an organization (irrespective of the underlying financial instrument described above), usually a strategic business unit (SBU), into a carve-out object. This object is to exist as an independent viable unit that can then either be integrated into another organization or can operate as a legally independent, standalone organization (Müller 2006). Examples include the disposal of IBM's personal computer business and its integration into Lenovo in 2004 or the carve-out of the semi-conductor branch of Siemens, followed by the establishment of Infineon in 1999. Besides its transformational impact on individual companies, carve-outs play an important economic role. In 2009 more than 12.000 divestitures were conducted worldwide, having a total transaction volume of more than 600 billion US dollar (Deloitte Corporate Finance 2010).

The extant literature focuses on the acquisition and integration of new strategic business units, typically referred to as post merger integration (PMI). In contrast, the divestiture of SBUs has rarely been researched (Müller 2006). In both research and practice IT typically receives limited attention relative to its complexity and financial implications. Within a carve-out project, the IT component – referred to as 'IT carve-out' – is frequently

challenging, putting the seller's organization and the carve-out object under high stress (Cascorbi 2003; Buchta et al. 2009). In part, this is due to the short time frame, which is usually between three and nine months, and the technological and organizational complexity of IT carve-outs. Therefore, IT often accounts for a significant proportion of the total costs of the transaction (Leimeister et al. 2008; Fähling et al. 2009). Specifically, separating the IT landscape is the key technical issue with critical implications for carve-out costs and success (Leimeister et al. 2008; Fähling et al. 2009; Fähling et al. 2010). This raises several issues, including, for example, migrating systems and data, renegotiating contracts with service providers and protecting the intellectual property of the involved parties (Leimeister et al. 2008; Buchta et al. 2009).

Different studies have addressed the question whether Divestitures positively affect firm performance (Kaiser and Stouraitis 1995; Brauer and Schimmer 2010; Du and Tanriverdi 2010; Lee and Madhavan 2010). Lee and Madhavan's Meta-Analysis of 94 studies indicate that "divestment has a positive, statistically significant effect on postdivestiture performance" of the divesting parent firm (Lee and Madhavan 2010). They also showed clear moderating effects of the transaction format, the transaction intent and the resource level. The meta-study implies that strategically intended divestitures and a superior execution of the transaction increase the likelihood of success (Lee and Madhavan 2010). However, it remains unclear how to adequately evaluate a superior execution, apart from measuring the resource level by for instance age, past performance or R&D investments. Additionally, success can be evaluated from different perspectives, taking the former parent, the carve-out object or the buyer at the focus. To investigate, how the success of the execution of a carve-out, can be evaluated, our research is guided by the following two research questions:

a) *How is project success measured in different contexts within the domains mergers and acquisitions, outsourcing and general project management?*

b) *What metrics would be adequate for evaluating success or failure of the carve-out project?*

By providing an overview on metrics for the evaluation of carve-out success, project managers are given an instrument to control and steer their projects as well as having a basis for argumentation with other stakeholders. For researchers it provides a possibility to better operationalize the "superior execution" variable. It can further be useful for cross-case comparisons in qualitative research, since it will be possible to objectively distinguish successful cases from failing cases.

2   Methodology

Our research approach was two folded. First we have conducted a literature review following Webster and Watson (2002). Due to the novelty of the IT carve-out research domain and the little scientific literature (Müller 2006), we have looked into the related research areas "mergers and acquisitions", "outsourcing" and in general "project management". Our objective was to provide an adequate overview on how success is measured within these different domains.

The journals reviewed included Information & Management (I&M), the International Journal of Project Management (IJPM), the Journal of Business Research (JBR), the Journal of Management Information Systems (JMIS), Management Information Systems Quarterly (MISQ), Management Science (MS), the Organization Science (OS) as well as several German publications like "Zeitschrift für Planung & Unternehmenssteuerung". Additionally different conference proceedings such as the International Conference on Information Systems (ICIS) have been included. Each outlet was reviewed using a full-text search utilizing about 30 search term combinations. Further publications have been identified by going backwards using the citations within the articles.

Second we have reanalyzed interviews originally conducted within a research project aiming at identifying challenges and success factors of IT carve-outs. Our intention was to empirically highlight the objectives of different carve-out stakeholders and match them with success metrics identified in literature. Out of in total 38 interviews, 13 interviews addressed carve-out objectives directly or indirectly. The interviews were semi-structured and ranged from 30 minutes up to 140 minutes. The participants were guaranteed confidentiality and anonymity. Interviewees were chosen to represent different stakeholders (seller, buyer, external consultants) and had extensive knowledge of the transaction. They were involved in either the IT or business carve-out, resembling both leadership positions (typically the project manager or leader of the IT workstream) to ensure a high level management view, and operational jobs to study actual activities.

Table 1: Overview on the Interviews

Interviewpartner	Stakeholder Role	Experience	Interview Type
Alpha	Seller	several carve-outs	on site
Beta	Seller	n/a	on site
Gamma	Consultant	several carve-outs	on site
Delta	Carve-Out Object	n/a	on site
Epsilon	Carve-Out Object	several carve-outs	on site
Zeta	Seller	several carve-outs	on site
Eta	Consultant	several carve-outs	telephone
Theta	Consultant	several carve-outs	on site
Iota	Consultant	several carve-outs	on site
Kappa	Buyer	first carve-out	on site
Lambda	Consultant	n/a	on site
My	Seller	several carve-outs	on site
Ny	Seller	several carve-outs	on site
Xi	Buyer	n/a	on site

3 Literature Review

Following the first research question our aim was to categorize the different approaches on how to measure success after project completion, after business process outsourcing projects or for the success of mergers and acquisitions. Success as such is defined as "accomplishment of an aim or purpose" (Oxford Dictionaries 2010).

Schoenberg (2006) conducted an interesting research study in which different approaches to success measures for acquisitions have been compared. He found the four categories "cumulative abnormal returns", "managers' subjective assessment", "expert informants' subjective assessment" and "divestment" (Schoenberg 2006).

Ika (2009) conducted an excellent research on how project success is represented in the project management journals over time. We captured his synopsis and extended it with research besides the two large publications on project management (Project Management Journal (PMJ) and the International Journal of Project Management (IJPM). One of our major findings after studying the project management related literature was, that it is important to distinguish between the actual project (outcome) success and the management of a project (de Wit 1988; Ika 2009). Successful project management may lead to a successful project outcome, but the project can also fail despite successful project management (Ika 2009).

Jiang and Qureshi (2006) performed a literature research on the topic of (business process) outsourcing results. They found out that most research studies used case studies or surveys and only few financial data analysis.

If we see mergers and acquisitions or business process outsourcing simply as a kind of project, it is therefore possible to integrate the separate approaches for measurement found in the financial economics, the project management and the business process outsourcing literature. We did not find literature where financial economics measure has been used within

the project management (e. g. to measure cumulative abnormal returns in event studies). We also found some publications where subjective assessments from managers of mergers and acquisitions have been gathered to complement objective financial information (Datta and Grant 1990; Capron 1999). Quite unique is Larsson's and Finkelstein' (1999) approach where they utilized case surveys to measure M&A performance based on Likert-scales.

It is certainly worth discussing, if it is possible to measure the success of one single project through a (capital market oriented) measure. But for our purpose to measure the success of IT carve-out projects, it seems worth the idea. We also found only a few studies where success of project management has been somehow split from success of project outcome and been tested for correlation (Munns and Bjeirmi 1996; Dvir et al. 2003). In this article though, we want to consequently distinguish between measurement of the success of a project outcome and the success measurement of the management of the actual project.
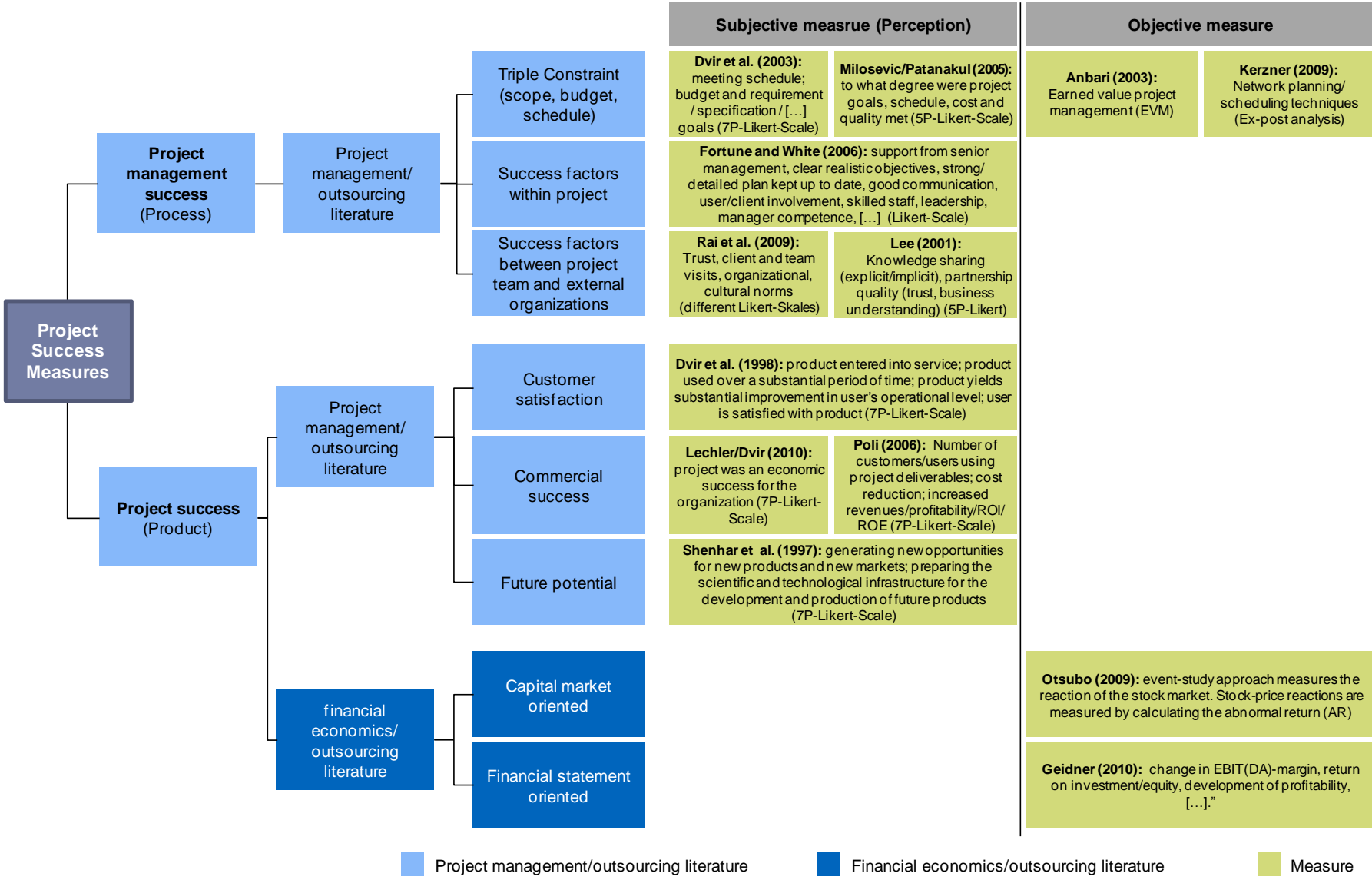
We took all three research domains into consideration and finally consolidated two approaches to measure success in the three domains:

The first approach is to measure the success of the project management. This approach is utilized especially in the domain "project management" and often in the domain "business process outsourcing" (Dvir et al. 1998; Milosevic and Patanakul 2005; Huang et al. 2009).

The second approach is to measure the success of the outcome of a project. On the one hand that can be done based on financial data available to analysts. This summarizes and still extents two of Schoenberg's (2006) categories "cumulative abnormal returns" and "divestments". This external, objective approach is widely used in financial economics research (Datta and Grant 1990; Madura and Nixon 2002; Otsubo 2009). On the other hand the success of projects can be measured using additional metrics found in project management

literature, e. g. customer satisfaction or future potential (Dvir et al. 2003; Huang et al. 2009; Lechler and Dvir 2010).

Figure 1: Project success dimensions and corresponding metrics

	Subjective measrue (Perception)		Objective measure	

Project Success Measures

Project management success (Process)

Project management/ outsourcing literature

- **Triple Constraint (scope, budget, schedule)**
  - **Dvir et al. (2003):** meeting schedule; budget and requirement / specification / [...] goals (7P-Likert-Scale)
  - **Milosevic/Patanakul (2005):** to what degree were project goals, schedule, cost and quality met (5P-Likert-Scale)
  - **Anbari (2003):** Earned value project management (EVM)
  - **Kerzner (2009):** Network planning/ scheduling techniques (Ex-post analysis)

- **Success factors within project**
  - **Fortune and White (2006):** support from senior management, clear realistic objectives, strong/ detailed plan kept up to date, good communication, user/client involvement, skilled staff, leadership, manager competence, [...] (Likert-Scale)

- **Success factors between project team and external organizations**
  - **Rai et al. (2009):** Trust, client and team visits, organizational, cultural norms (different Likert-Skales)
  - **Lee (2001):** Knowledge sharing (explicit/implicit), partnership quality (trust, business understanding) (5P-Likert)

Project success (Product)

Project management/ outsourcing literature

- **Customer satisfaction**
  - **Dvir et al. (1998):** product entered into service; product used over a substantial period of time; product yields substantial improvement in user's operational level; user is satisfied with product (7P-Likert-Scale)

- **Commercial success**
  - **Lechler/Dvir (2010):** project was an economic success for the organization (7P-Likert-Scale)
  - **Poli (2006):** Number of customers/users using project deliverables; cost reduction; increased revenues/profitability/ROI/ ROE (7P-Likert-Scale)

- **Future potential**
  - **Shenhar et al. (1997):** generating new opportunities for new products and new markets; preparing the scientific and technological infrastructure for the development and production of future products (7P-Likert-Scale)

financial economics/ outsourcing literature

- **Capital market oriented**
  - **Otsubo (2009):** event-study approach measures the reaction of the stock market. Stock-price reactions are measured by calculating the abnormal return (AR)

- **Financial statement oriented**
  - **Geidner (2010):** change in EBIT(DA)-margin, return on investment/equity, development of profitability, [...]."

Legend:
- Project management/outsourcing literature
- Financial economics/outsourcing literature
- Measure

3.1 Project management success metrics (process perspective)

A commonly accepted measure for (IT) project management success is the so called "triple constraint" (Cuellar 2010) or "iron triangle" (Atkinson 1999). This persists of the three parts "scope", "budget" and "schedule" (Cuellar 2010). The latter is sometimes referred to as "time" (Milosevic and Patanakul 2005; Huang et al. 2009), "scope" at times as "meeting design goals" (Dvir et al. 2003) or even "quality" (Atkinson 1999; Westerveld 2003).

To assess this success measure, most of the time questionnaires are utilized, which use a 5-point Likert scale (Ika 2009). Sometimes also a seven-point scale is used (Dvir et al. 2003). Additionally, in some studies interviews have been conducted to reduce the risk of gathering data which does not fulfill the requirements of the study (Ika 2009). In most research studies, multivariate statistical methods have been used to analyze the data (Dvir et al. 1998; Ika 2009). This methodology of data collection and analysis is not just applied to the success measurement of the triple constraint, but also to other metrics for project (management) success in general.

Asides measuring the triple constraint with subjective questionnaire there is also the possibility to objectively monitor the compliance of the triple constraint scope, budget and schedule using the earned value project management method (Anbari 2003). This method "allows the calculation of cost and schedule variances and performance indices and forecast of project cost and schedule at completion" (Anbari 2003). Also methods for project planning could be used to make an ex-post success analysis. Kerzner (2009) describes several techniques, like program evaluation and review (PERT), a special kind of network planning technique.

Although the "triple constraint", or parts of it, is widely-used, criticism has been expressed. For example, Dvir et al. (1998) state that projects may meet budget and schedule and though may not meet customer needs and for that reason be unsuccessful. Therefore

additional measures are shown in project management / outsourcing literature which we describe in chapter 3.2.1.

Besides the following measures for overall project success, other – hard to measure – factors required for successful project management can be found in the literature which we summarize under "project success factors" (de Wit 1988; Pinto and Covin 1989; Belassi and Tukel 1996; Shenhar et al. 2002). These factors are in charge of successful project management (Milosevic and Patanakul 2005). Fortune and White (2006), Huang et al. (2009) or Pinto and Covin (1989) name and describe such success factors, like "support from senior management", "skilled staff" or "good communication". Fortune and White (2006) and Huang et al. (2009) give a good overview on different studies regarding critical project success factors.

It is essential to have a look at success factors which are important not only for the project management of one project, but also, for example when project teams interact with other organizations. This is primarily interesting for outsourcing projects. Rai et al. (2009) conducted a good research study about the question, on which factors the success of offshoring projects relies. They found that success of offshoring projects is dependent on factors between the project team, the client and the vendor, such as "client visits to the vendor site, client representation on the team, and open architectures for governance" (Rai et al. 2009). Successful project management also has to take care of knowledge sharing and partnership quality between the project team and the other included companies (Lee 2001).

De Wit (1988) already showed a connection between other project (management) success criteria and project success factors. Westerveld (2003) linked the two topics project (management) success factors and project success criteria in defining a "project excellence model", which basically differentiated between the result area (project (management) success criteria) and the organizational area (project success factors). Lechler and Dvir (2010)

followed a similar idea in linking project management structures and project success using a multidimensional methodology.

3.2 Project success metrics (product perspective)

3.2.1 Measures from the project management literature

As discussed, it may not be sufficient to measure only the success of project management to determine if a project was successful. To measure the overall success, it is reasonable to extend the measures beyond successful project management.

Consequently, it is common to measure customer satisfaction (Dvir et al. 1998; Milosevic and Patanakul 2005; Rai et al. 2009). Dvir et al. (1998) requested project customers, who are using the outcome of a project, like a product, to answer questions like: "Did the product enter into service? Did the project reach the end users on time? Was the product used over a substantial period of time? Are you satisfied with the product?"

Further researchers recommend, including the dimension "commercial success", to measure the success of a project (Dvir et al. 2003; Milosevic and Patanakul 2005; Huang et al. 2009). This is used to assure that the project not only has to meet its scope, budget and schedule, but also to increase revenues and / or to reduce costs and therefore add value to the whole company (Huang et al. 2009).

Questions regarding this topic are as following (Huang et al. 2009): "Were enough customers / users using the project deliverables? Were costs reduced? Were revenues, profitability, ROI, ROE increased?"

Concluding, sometimes the dimension of the "future potential" of the project can be found as a success measure (Shenhar et al. 1997; Dvir et al. 2003; Huang et al. 2009; Lechler and Dvir 2010). This measure takes the contribution of a project to the long-term future of a company into account (Huang et al. 2009). Shenhar et al. (1997) asked questions like "Is the

project generating new opportunities for new products and new markets? Is it preparing the scientific and technological infrastructure for the development and production of future products?" to measure whether the project is generating future potential.

3.2.2 Measures from the financial economics literature

Besides using measures from the project management related literature to measure the success of a project, we also included measures from the financial economics domain.

One of the most common financial measures used for evaluating the success of mergers and acquisitions is the "abnormal return" (AR) or correspondingly, the "cumulative abnormal return" (CAR). The abnormal return is computed using the expected return of a stock (in absence of a certain "abnormal" event) and comparing it to the actual return within a specific period (Fama et al. 1969). The CAR is calculated summing up single ARs, e.g. daily ARs to a multi-day CAR (Gleason et al. 2006). This metric is usually raised in a so called event study, which measures the reaction of the stock market to certain activities (Otsubo 2009). The data is gathered from financial databases like the "Securities Data Company (SDC)" (Otsubo 2009), or the "Thomson Financial SDC Global" (Gleason et al. 2006).

The measure has been utilized to evaluate equity carve-outs (Gleason et al. 2006; Otsubo 2009). Event studies using abnormal returns also have been conducted in the (business process) outsourcing domain (Agrawal et al. 2006; Oh et al. 2006; Duan et al. 2009). In these studies no subjective, internal examination of the project success has been undertaken nor has it been tried to find a correlation between the understandings of success from an internal or external perspective.

The performance measurement through (cumulative) abnormal returns is found to be complemented using additional market information, like sales and market share data (Madura and Nixon 2002; King et al. 2004). Ahn and Denis (2004) and Gertner et al. (2002) for

example conducted event studies for spin-offs and supplemented these with additional market information about the focal firm.

In supplementary studies, like Capron (1999) or Gleason et al. (2006) various "endogenous" hypothesis, like the influence of the relative size of the merging firms or the size of the board of directors, were tested using the performance measurement through CAR.

In recent German research studies, Roediger (2010) and Geidner (2009) also used published financial statements to measure the performance of mergers and acquisitions as well as divestitures. They distinguish within the external market perspective between the capital market oriented and the financial statement oriented approach.

Geidner (2010) gives an overview on which measure can be used, like the EBIT(DA)-margin, the return on investment / equity or the development of the profitability during time.

The usage of an external, objective perspective to measure performance of mergers and acquisitions or carve-outs is widely used and accepted. The advantage of the capital market oriented methodology is that capital market data is said to reflect all relevant information, that it is objective, that it contains no bias from managers, that there is less subordination to manipulated accounting data and that the data is often publically available (Lubatkin and Shrieves 1986). The latter also applies for the advantages of the financial statement methodology (Roediger 2010).

These approaches have several comprehensive weaknesses, like for the capital market oriented methodology, e. g. for a firm which has to be publicly quoted, the measurement is more a forecast of the investors than the actual measure of the operating performance and that the share price movement may reflect other events (Lubatkin and Shrieves 1986). For the financial statement methodology there are also numerous problems, like manipulation of accounting data or simply a different accounting valuation method (Roediger 2010).

14

Following our literature review we consolidated the following table which represents the results of our investigation. In the columns we outlined the different success measures (or success factors) that we described earlier. We made a clear distinction between success factors and measures which are important for project management and the ones which are important for project success. We also noted the originating domain and the used methodology:

Table 2: Literature classification

	Domain			Methodology			Project Mgmt. Success				Project Success					
	project management	(business process) outsourcing	mergers and acquisitions	questionnaire/interview	financial database	miscellaneous/no survey	project scope	time	cost	project success factors	Benefit/customer satisfaction/orga.	commercial success	future potential	CAR / stock price	accounting data	Misc
de Wit 1998	x					x	x	x	x	x	x					
Dvir et al. 1998	x			x			x			x	x		x			
Dvir et al. 2003	x			x			x				x	x	x			
Milosevic/Patanakul 2005	x			x			x	x	x		x	x				
Thi/Swierczek 2010	x			x				x	x	x	x					
Lechler/Dvir 2010	x			x			x	x	x		x	x				
Huang et al. 2009	x					x	x	x	x	x	x	x	x			
Cueallar 2010	x					x	x	x	x			x				
Shenhar et al. 1997	x			x			x	x	x		x	x	x			
Atkinson 1999	x					x	x	x	x		x	x				
Wateridge 1998	x			x			x	x	x		x					
Belassi/Tukel 1996	x			x						x						
Pinto/Covin 1989	x			x						x						
Rai et al. 2009		x		x				x	x		x					
Duan et al. 2009		x			x									X		
Agrawal 2006		x			x									X		
Oh et al. 2006		x			x									X		
Lee 2001		x		x						x						
Stylianou et al. 1996			x	x							x	x				
Angwin 2004			x	x			x		x			x				
Larsson/Finkelstein 1999			x	x	x							x	x			
Schoenberg 2006			x	x	x									X		
Gleason et al. 2006			x	x										X		
Madura/Nixon 2002			x	x										X		
Otsubo 2009			x	x										X		
Roediger 2010			x			x								X	x	x
Lenhard 2009			x	x										X		
Geidner 2009			x			x								x	x	
Homburg/Bucerius 2006			x	x										x		
Moeller et al. 2004			x	x										x		
King et al. 2004			x	x										x	x	
Anand/Singh 1997			x	x										x	x	
Ahn/Denis 2004			x	x										x	x	
Gertner et al. 2002			x	x										x	x	
Capron 1999			x	x	x									x	x	x
Datta/Grant 1990			x		x									x	x	x

16

4 Towards a Success Evaluation for IT Carve-Outs

The success of a divesture can be determined at different levels and from different perspectives. On a strategic level, success can be determined by the degree of achieving the intended effect of the underlying strategic decision that led to the divestiture or purchase decision. This could be a better competitive situation or a better strategic alignment for the seller, buyer or the SBU after the divesture. Also capital market or financial statement oriented metrics would be feasible to evaluate success from a strategic management perspective. However, from a transactional perspective success measures need to be more comprehensive as the following analysis of our interviews shows.

4.1 Objectives of IT Carve-Outs from different perspectives

As our interviews indicated, the objectives of a carve-out differ greatly, depending on the examined stakeholder and the characteristics of the carve-out. In the following we present the main objectives, derived from our empirical insights.

For the seller, the most important goals are to sell for a high price and cut the costs of the carve-out, in order to increase the overall profit. The latter point is necessary, since typically the seller is bearing the costs of the carve-out, opposed to the purchaser who bears the costs of the integration process. In order to decrease the cost, it is essential to provide the necessary staff and process quality, to avoid claims from the seller for poorly executing certain tasks or delivering a non-functional organization. Another main goal is to finish the process as fast as possible. This objective often collides with the first one, creating the need to especially focus on one of them. One of our interviewees got to the heart of that, when he said: "Every day we needed took us a million. So we said: Don't discuss about a thousand Euro, we have to get out of there!". In this case the time was way more important than the costs of the actual carve-out, since the carve-out object was a losing bargain. The seller is also interested in the scope of the carve-out. In many cases the buyer and the seller have a different

opinion of what should belong to the sold business unit and what it should be structured like. For example, we encountered a case, where a company wanted to sell two SBUs and prepared them both to be standalone, but after the auction the buyer wanted both of them and had to pay more, because both SBUs were already out-carved separately. In that case the parties had a different view on the scope of the carve-out. Other goals of the seller include the avoidance of reputation loss and the clean separation from the carve-out object, so the parent organization does not need to provide for them anymore. For the separation part, one of our interlocutors told their customer: "We are giving you a completely standalone company, but we do not want to support your business longer than absolutely necessary". Concerning the avoidance of reputation losses, there are cases, where the seller has to face a decrease of its reputation, either due to the operations of the business unit it is about to carve out, or due to the process by itself, e.g. by reducing staff by a tremendous amount. In general, the seller tries to avoid a reputation loss by all means, since it is usually accompanied by a reduction of its customer base. Furthermore, the seller is generally worried about minimizing the know-how loss, which is inevitable, but minimizeable, in a carve-out. One interviewee told us: "It [note: certain tools / know-how] is an asset of [XYZ Inc.], but the collection of this is usually neglected. There is no one really in charge of collecting the know-how, and that is a real problem!"

The focus of the purchaser is mostly on the price and on the operability of the carve-out object. Every buyer does want a business unit, which is able to perform its task properly, without needing any support. One of the interviewees said: "They [note: the buyer] didn't have the approach of "just spend as much money as needed" but they were certainly determined to hand over businesses that have no value destroyed by the carve-out activities.", so the preservation of any existing value is a very important goal in a carve-out. Of course he is also interested in a fast carve-out, in order to be able to start the integration as fast as

possible. In our interviews, the buyer was never worried about the cost of the carve-out, mainly because it was pretty clear that the seller had to bear it. But in cases where the purchaser has to bear the costs of the carve-out, it is pretty obvious, that his goal would be to keep these costs as low as possible. The buyer also has a stake in the scope of the project. He wants the business unit he bought to be just the right size and sometimes he also uses the carve-out process to make important changes to the application landscape. One of our interview partners said: "Also the roll-out of a whole new CRM system took place. It had been developed before the carve-out and was then rolled-out in the course of it." Further objectives can be distinguished by the buyer type: strategic investor, financial investor or stand alone business, which is the extreme case of a financial investment. A strategic investor is basically a company purchasing the carve-out object in order to integrate it into their systems and receive a benefit, e.g. customer base, portfolio range, etc. His main goal is a smooth integration into his existing systems and processes. A financial investor on the other hand does not have any existing systems, so his goal is to receive a completely standalone company, which is able to operate with the status quo. A consultant told us in an interview: "When you have a strategic investor, he most likely does already have pre-existing structures, processes and employees. So you have to see where you can fit it in and create synergies. A financial investor does generally not have any pre-existing processes or IT, he just wants to buy the carve-out object and sell it later as expensive as possible. He is not interested in the everyday business, that is not his job." If the goal of the carve-out is to create a completely standalone corporation or a joint venture with another company, the main goal of the buyer, i.e. the emerging company, is to reach a point, where it can completely run on its own, i.e. a standalone mode.

For a carve-out object, the main goals are preserving the knowledge base that it operates on and preserving the operability. In order to preserve the knowledge base, a main

step is to attempt to retain the key employees, which have valuable know-how and sometimes tend to leave a company in such a change process. One of our interview partners told us: "Especially in comparatively small departments there are sometime only four or five knowledge carriers. Now if two or three of those leave the company you have a real problem. Especially in a carve-out that's really critical, when you are under time pressure and the know-how goes missing." This is also a subtask of assuring the operability, accompanied by other tasks like claiming the necessary IT structures to be able to operate, agreeing on Transitional Service Agreements (TSAs) to have secured transition period, and many more.

A fourth party of a carve-out, which is rarely mentioned, but nevertheless very important, are different stakeholders of the seller and the carve-out object. With the customers leading the list of course, it also affects the employees and the suppliers. Each party has different goals and interests for the specific carve-out. Customers are mainly worried about the continuity of their supply in goods or services, and the quality of the supply. Most contracts have special clauses, which grant them extraordinary termination rights in case of a shift of the ownership. They are furthermore worried about financial risks, since mother companies guarantee a certain stability which they rely on, and of course about price continuity. One of the interviewees backed that up by saying: "For example a customer says: I have a contract with the [XYZ Inc.] and now I have to purchase directly from the subsidiary, but don't want to have a contract with them, because of credit risks, etc." Employees on the other hand are mainly worried about the security of their job and some of them even take the chance of such a big change and leave the company, which the carve-out object tries to prevent, since the employees carry special know-how. A part of the staff is often asked to stay with the carve-out object, i.e. leave the mother, but some of them do not want that. In one case "the employees were told: come with us [note: the carve-out object], we need you! But some of them just didn't want that, they thought their jobs would be much more secure in the big

[XYZ Inc. – the parent organization]." So the goals of the employees for a carve-out also differ greatly from the goals of the parent company or of the subsidiary, which is to be sold. Supplier on the other hand, are mainly interested in maintaining the existing contracts as they are, or maybe even tweak them to their advantage. They do not want to lose a customer, which is sometimes very complicated, because the purchaser already has a different supplier in the same business segment.

Figure 2 provides an overview of all stakeholders of a carve-out and their specific objectives. It is obvious, that most of the goals are contrary and that it is nearly impossible to completely fulfill every single one of them. Furthermore we do not imply, that the figure covers every possible goal in a carve-out, but it does cover the main goals, which directly correspond with the success and the perception of the success of the carve-out itself.

Figure 2: Objectives of the IT Carve-Out as mentioned by the interviewees
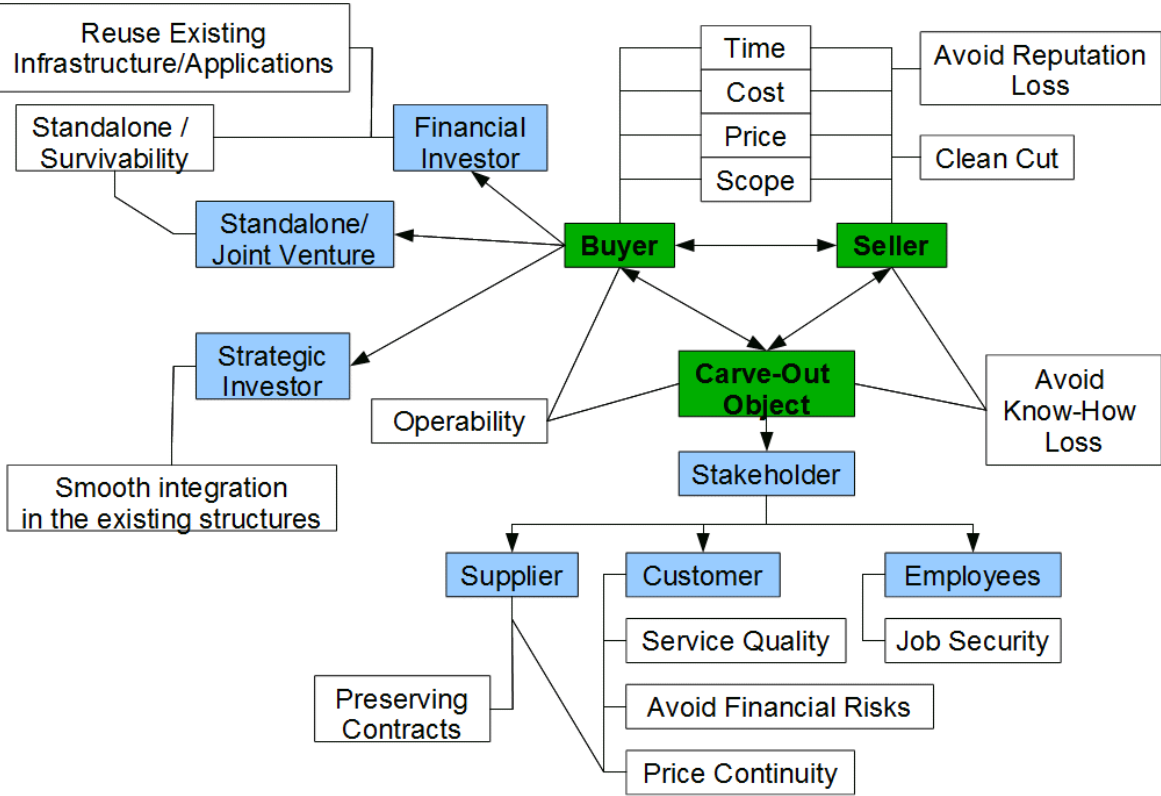
4.2 Evaluating success of carve-out management

By matching the carve-out objectives with the success measures from different research domains, which were described in section three, we propose measures to evaluate both the success of the carve-out management (process perspective) and the project outcome (product perspective). As we have described above, it is important to make this distinction. Furthermore it is important to differentiate between different stakeholders. Each has different, partially conflicting objectives which makes it important to clearly attribute from which perspective the success is measured. Although the interviews had a focus on the IT workstream, the proposed success metrics can also be utilized for other workstreams, or the carve-out as a whole.

4.2.1 Project management success (process perspective)

To evaluate the success of the carve-out project management, the common triple constraint metrics – adherence to project scope or quality, project budget and project schedule – can be applied. As our interviews have highlighted, this is typically a mutual objective of both, buyers and sellers, although conflicting interests might appear regarding the scope/quality dimension, if not fixed in the contract. As in general project management literature these metrics can be measured subjectively by the perception of to what degree the criteria were achieved, or objectively taking for example earned value measures.

Yet another indicator for the success of carve-out management, especially addressing the "clean cut" as well as the scope/quality objectives, are transitional service agreements (TSAs). Typically, TSAs control the delivery of IT services by the vendor until all IT systems at the buyer work effectively. Also the carve-out object can provide IT services to the former parent. TSAs are common in divestitures, since it is typically not feasible to separate all information systems or build new IT services during the average 115 days (Gillingham and Stimpson 2008) to close large transactions. However, unlike the parent or one of its business

units acts as an outsourcing provider, the parent typically has little interest to provide IT services to the carve-out object. This is because TSAs distract from the original objective of the divestiture, focusing on another part of the business. Additionally, most vendors have little capabilities and experience in providing external professional IT services. In an empirical study on 64 corporate spin-offs in the united states, Du and Tanriverdi (2010) have found "that transitional IT services are critical for minimizing the negative effects of business restructuring on operational performance, and improving operational performance of the spun-off unit". However, they also found "that longer transitional IT services increase the time-to-close the spin-off deal and reduce market valuation of the spun-off unit".

In conclusion, TSAs can be beneficial to support current business operations and smoother transitions, but they tend to be a way to address missed Day One requirements or postpone difficult integration decisions. As such, they can be used as a measure to evaluate IT carve-out management. Since TSAs are not only defined for IT services it can also be used as a measure for other carve-out workstreams. To operationalize this measure, either the number of TSAs can be used, or the duration, the parent and the carve-out object are related by TSAs. The first one would be a proxy of the extent to which services are dependent on TSAs. However, the number of TSAs does not necessarily tell much about that extent, because it does not account for the granularity of the service agreement. Thus, the latter measure appears to be more practical, since it accounts for the duration of dependency. The longer TSAs are in place, especially if they significantly exceed the average duration of approximately twelve month (Du and Tanriverdi 2010), the stronger the indicator for a weaker carve-out management is. We propose to utilize TSAs as a metric for measuring the project achievement and such the scope/quality dimension of Triple Constraint.

Similarly as in project management, the consideration of success factors indicates whether the project conformed to good project management practices. As described in section

three, "senior management support", "clear realistic objectives", etc. are examples of such success factors (Fortune and White 2006). Success factors that address the collaboration between project members in an IT carve-out from the seller and the buyer side are "communication", in terms of an accurate and frequent information provision of all involved stakeholders and "harmonization of seller's and buyer's needs", to ensure a high alignment between the seller's and buyer's requirements and therewith prevent redundant work (Leimeister et al. 2008). Although this has not explicitly been mentioned as an objective of a carve-out, many of the interviewees reported that as a critical aspect for success. Further objectives, such as the avoidance of reputation loss, the maintenance of business operability or the avoidance of know-how loss through fluctuation could also be addressed by success factors directly or indirectly. The extent, to which success factors are considered important within a carve-out project, can be measured subjectively on a Likert-scale, based on the perception of the project members.

In general project management literature the measure of „customer satisfaction" addresses whether the resulting product went into service and was used over a substantial period of time. In divestitures this is captured by capital market or financial statement oriented measures, since the resulting outcome is the carve-out object. However, customer satisfaction can be used to indicate, whether the carve-out substantially distracted the carve-out object's clients by, for example reduced product or service quality. This could be measured by asking customers about their perceived service quality, using for example the SERVQAL (Parasuraman et al. 1988) measure. By comparing pre, during and post carve-out perception, the customer satisfaction can indicate whether externally visibly disturbances occurred throughout the transition. Another possibility would be to ask sales personnel whether customers took notice of the carve-out or not. Both options are measured as perception on a Likert-scale.

4.2.2 Project success

As described, the measurement of project success needs to be differentiated by the perspective of the different stakeholders, the seller, the buyer and the carve-out object. It is plausible to assume that the carve-out object's and the buyer's objectives can largely be summarized, since the buyer is typically pursuing a future successful business operation. Thus, in the following we will only distinguish between the buyer and the seller.

The "Future Potential" as described in section three can be used as a success indicator for the project outcome, meaning the potential of the carve-out object for the buyer. Depending on the type of the buyer, the objectives and thus the success criteria differ. In the case of a strategic investor, it could be measured whether the carve-out object could be integrated smoothly without any larger difficulties. Financial investors, which in the extreme case run the carve-out object as a standalone business, would measure the extent to which existing infrastructure and applications could be reused and whether the carve-out object would be individually, economically viable. All these metrics can be measured as a perception of the buyer, using a Likert-scale.

Economic success is an objective of both the seller and the buyer. By divesting or respectively acquiring a business unit both parties eventually pursue the objective to increase their economic success. The measurement of economic success or firm performance after acquisitions and divestitures has been on the research agendas for a longer time and are gradually understood well. As described in section three, capital market and financial statement oriented measures such as cumulative abnormal returns or the development of EBIT(DA) over time can be utilized here.

Finally different other, case specific success measures can be formulated, which can be of mutual or conflicting interest for the seller and the buyer. These other success measures depend on the strategic intent of the transaction. Customer relationships are just one example.

26

Especially for large conglomerates, selling a specialized business unit the question, whom belongs the customer base is very critical. The parent organization of course does not want to lose the customers of their other business units, while the carve-out object and respectively the buyer pursue to acquire the customer base as well. Thus conflicting interests and success objectives occur. The mentioned example of the customer relationship can be measured by the customer retention rate after the divestiture is finished.

Figure 3 presents our proposed measures to comprehensively evaluate both the success of the carve-out management (process perspective) and the success of the project outcome (product perspective).

Figure 3: Proposed measures to comprehensively evaluate carve-out success
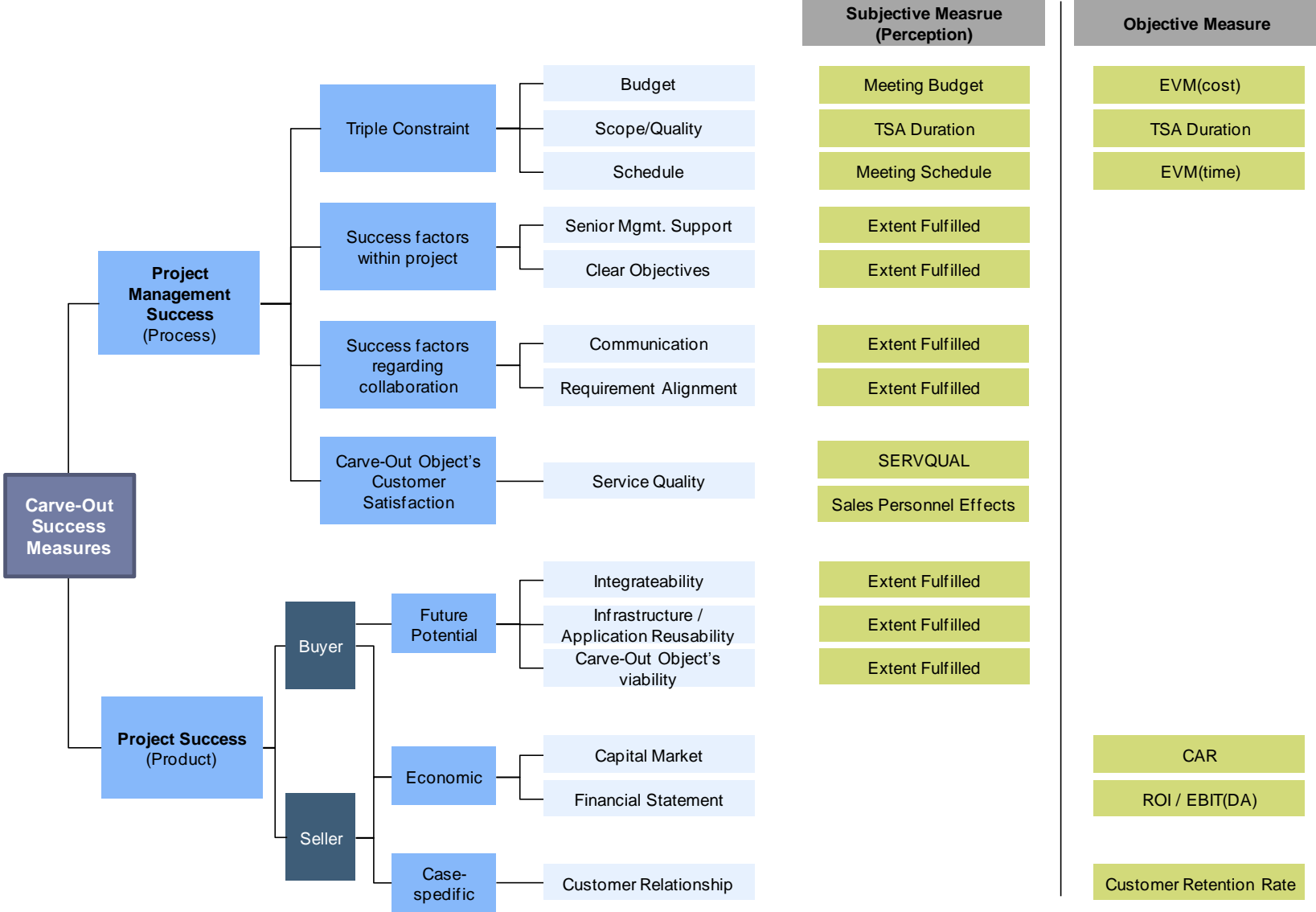
5 Conclusion

As discussed in this article, measuring the success of divestitures from a strategic perspective, utilizing capital market or financial statement oriented metrics is commonly found in scientific literature (cf. Kaiser and Stouraitis 1995; Brauer and Schimmer 2010; Du and Tanriverdi 2010; Lee and Madhavan 2010). However, it remained unclear how to adequately evaluate success on a process level, as well as for non-financial objectives. By analyzing literature from different domains (project management, outsourcing, M&A) and comparing these metrics to the objectives of carve-outs, we have proposed measures that can be utilized to evaluate the success of both carve-out management (process perspective) and project outcome (product perspective), when financial information is not available. Although we were focusing on the IT workstream of carve-out projects in the interviews, we assume that the suggested metrics can be utilized for other workstreams as well.

From our research we have learned that it is important to clearly distinguish between the success of the outcome of a project and a successful project management. Both need to be considered when comprehensively evaluating the success of carve-outs. Successful project management supports the success of the project outcome, but does not necessarily guarantee it. Environmental factors are also influencing, whether the strategic decision to divest a business unit will be successful or not. Because of the different stakeholders (vendor, buyer, carve-out object) and the different perspectives (project management, project outcome) it is not possible to provide a single metric that evaluates whether a carve-out was successful or not. Therefore we have suggested different metrics, addressing different aspects that shall provide a more comprehensive evaluation, indicating the success of a carve-out.

Practitioners, especially project managers, can apply our suggested metrics to obtain a current status of their project from different perspectives. As such, they are given an

instrument to control and steer their projects as well as having a basis for argumentation with other stakeholders. For researchers our metrics provide the possibility to better operationalize the "superior execution" variable (process perspective), discussed in Lee and Madhavan's (2010) study. It can further be especially useful for cross-case comparisons in qualitative research since it will be possible to objectively distinguish successful cases from failing cases.

Future research should include the empirical application and validation of our suggested success metrics for its application with carve-outs. This could include expert interviews with carve-out managers to evaluate whether the suggested metrics are suitable to adequately measure the success of carve-outs from a practitioner's point of view. Furthermore it would be interesting to study how carve-out success is perceived internally from project members and externally from other stakeholders. Also further research on success factors of carve-outs would be beneficial to adequately select and operationalize success factors for the evaluation.

6 References

Agrawal, M., R. Kishore and H. Rao, 2006, "Market reactions to E-business outsourcing announcements: An event study." *Information & Management*, **43**: 861-873.

Ahn, S. and D. J. Denis, 2004, "Internal capital markets and investment policy: evidence from corporate spinoffs." *Journal of Financial Economics*, **71**: 489-516.

Anand, J. and H. Singh, 1997, "Asset redeployment, acquisitions and corporate strategy in declining industries." *Strategic Management Journal*, **18**: 99-118.

Anbari, F. T., 2003, "Earned value project management method and extensions." *Project Management Journal*, **34**: 12-23.

Angwin, D., 2004, "Speed in M & A Integration : The First 100 Days." *European Management Journal*, **22**: 418-430.

Atkinson, R., 1999, "Project management: cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria." *International Journal of Project Management*, **17**: 337-342.

Belassi, W. and O. Tukel, 1996, "A new framework for determining critical success/failure factors in projects." *International Journal of Project Management*, **14**: 141-151.

Brauer, M., 2006, "What have we acquired and what should we acquire in divestiture research? A review and research agenda." *Journal of Management*, **32**: 751-785.

Brauer, M. and M. Schimmer, 2010, "Performance effects of corporate divestiture programs." *Journal of Strategy and Management*, **3**: 84-109.

Capron, L., 1999, "The long-term performance of horizontal acquisitions." *Strategic Management Journal*, **20**: 987-1018.

Cuellar, M., 2010, *Assessing Project Success : Moving Beyond the Triple Constraint Assessing Project Success : Moving Beyond the Triple Constraint*. International Research Workshop on IT Project Management 2010, St. Louis.

Datta, D. K. and J. H. Grant, 1990, "Relationship Between Type of Acquisition, The Autonomy Given to the Acquired Firm, and Acquisition Success: An Empirical Analysis." *Journal of Management*, **16**: p29.

de Wit, a., 1988, "Measurement of project success." *International Journal of Project Management*, **6**: 164-170.

Deloitte Corporate Finance, 2010, "Divestiture M&A News - Q1 2010 Divestiture Activity Reflect Strengthening of overall Economy."

Du, K. and H. Tanriverdi, 2010, *The performance effects of transitional IT services in corporate spin-offs*. International Conference on Information Systems (ICIS), St. Louis.

Duan, C., V. Grover and N. R. Balakrishnan, 2009, "Business Process Outsourcing: an event study on the nature of processes and firm valuation." *European Journal of Information Systems*, **18**: 442-457.

Dvir, D., S. Lipovetsky, A. J. Shenhar and A. Tishler, 1998, "In search of project classification: a non-universal approach to project success factors." *Research Policy*, **27**: 915-935.

Dvir, D., T. Raz and A. J. Shenhar, 2003, "An empirical analysis of the relationship between project planning and project success." *International Journal of Project Management*, **21**: 89-95.

Fama, E. F., L. Fisher, M. C. Jensen and R. Roll, 1969, "The Adjustment of Stock Prices to New Information." *International Economic Review*, **10**: 1-21.

Fortune, J. and D. White, 2006, "Framing of project critical success factors by a systems model." *International Journal of Project Management*, **24**: 53-65.

Geidner, A., 2009, *Der Wandel der Unternehmensführung in Buyouts Eine Untersuchung Private-Equityfinanzierter Desinvestitionen*. Wiesbaden, Gabler Verlag.

Gertner, R., E. Powers and D. Scharfstein, 2002, "Learning about Internal Capital Markets from Corporate Spin-offs." *The Journal of Finance*, **57**: 2479-2506.

Gillingham, I. and M. Stimpson, 2008, "Fast break: A way to design and manage TSAs to achieve a fast and clean separation." Deloitte.

Gleason, K., J. Madura and A. K. Pennathur, 2006, "Valuation and Performance of Reacquisitions Following Equity Carve-Outs." *The Financial Review*, **41**.

Homburg, C. and M. Bucerius, 2006, "Is speed of integration really a success factor of mergers and acquisitions? An analysis of the role of internal and external relatedness." *Strategic Management Journal*, **27**: 347-367.

Huang, Z., M. Poli, H. S. Mithiborwala and A. O. Success, 2009, "Project Strategy : Success Themes for Strategic Projects." *Management Science*: 1282-1289.

Ika, L. A., 2009, "Project success as a topic in project management journals." *Project Management Journal*, **40**: 6-19.

Jaeger, F., 1998, Der globale Markt als größeres Haus für größere Firmen. *Mega-Fusionen: Analysen - Kontroversen - Perspektiven*. H. Siegwart and G. Neugebauer. Bern, Paul Haupt**:** 11-38.

Jansen, S. A., 2007, *Mergers & Acquisitions: Unternehmensakquisitionen und - kooperationen. Eine strategische, organisatorische und kapitalmarkttheoretische Einführung*. Wiesbaden, Gabler.

Jiang, B. and A. Qureshi, 2006, "Research on outsourcing results: current literature and future opportunities." *Management Decision*, **44**: 44-55.

Kaiser, K. and A. Stouraitis, 1995, "Value creation through corporate restructuring: European divestitures." *European Management Journal*, **13**: 164-174.

Kaplan, S. N. and M. S. Weisbach, 1992, "The Success of Acquisitions: Evidence from Divestitures." *The Journal of Finance*, **47**: 107-138.

Kerzner, H., 2009, *Project management: a systems approach to planning, scheduling, and controlling*, Wiley.

King, D. R., D. R. Dalton, C. M. Daily and J. G. Covin, 2004, "Meta-analyses of post-acquisition performance: indications of unidentified moderators." *Strategic Management Journal*, **25**: 187-200.

Kromer, G. and W. Stucky, 2002, "Die Integration von Informationsverarbeitungsressourcen im Rahmen von Mergers & Acquisitions." *Wirtschaftsinformatik*, **44**(6): 523-533.

Larsson, R. and S. Finkelstein, 1999, "Resource Perspectives on Mergers and Acquisitions : A Case Survey of Synergy Realization." *Organization*.

Lechler, T. G. and D. Dvir, 2010, "An Alternative Taxonomy of Project Management Structures: Linking Project Management Structures and Project Success." *IEEE Transactions on Engineering Management*, **57**: 198-210.

Lee, D. D. and R. Madhavan, 2010, "Divestiture and Firm Performance: A Meta-Analysis." *Journal of Management*, **20**.

Lee, J., 2001, "The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success." *Information & Management*, **38**: 323-335.

Leimeister, S., J. M. Leimeister, J. Fähling and H. Krcmar, 2008, "Exploring Success Factors for IT Carve Out Projects." Galway, Ireland.

Lenhard, R., 2009, *Erfolgsfaktoren von Mergers & Acquisitions in der europäischen Telekommunikationsindustrie*.

Lubatkin, M. and R. E. Shrieves, 1986, "Towards Reconciliation of Market Performance Measures to Strategic Management Research." *The Academy of Management Review*, **11**: 497.

Madura, J. and T. D. Nixon, 2002, "The long-term performance of parent and units following equity carve-outs." *Applied Financial Economics*.

Milosevic, D. and P. Patanakul, 2005, "Standardized project management may increase development projects success." *International Journal of Project Management*, **23**: 181-192.

Moeller, S., F. P. Schlingermann and R. M. Stulz, 2004, "Firm size and the gains from acquisitions." *Journal of Financial Economics*, **73**: 201-228.

Müller, H., 2006, Einführung zum Mergers & Acquisitions Management. *Handbuch Mergers & Acquisitions Management*. B. W. Wirtz. Wiesbaden, Gabler**:** 1187-1207.

Munns, A. and B. Bjeirmi, 1996, "The role of project management in achieving project success." *International Journal of Project Management*, **14**: 81-87.

Oh, W., M. J. Gallivan and J. W. Kim, 2006, "The Market's Perception of the Transactional Risks of Information Technology Outsourcing Announcements." *Journal of Management Information Systems*, **22**: 271-303.

Otsubo, M., 2009, "Gains from equity carve-outs and subsequent events." *Journal of Business Research*, **62**: 1207-1213.

Oxford University Press, 2010, "Oxford Dictionaries Online - English Dictionary and Language Reference."

Parasuraman, A., V. A. Zeithaml and L. L. Berry, 1988, "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality." *Journal of Retailing*, **64**(1): 12-40.

Pinto, J. and J. Covin, 1989, "Critical factors in project implementation: a comparison of construction and R&D projects." *Technovation*, **9**: 49-62.

Rai, A., L. M. Maruping and V. Venkatesh, 2009, "Offshore Information Systems Project Success: The Role of Social Embeddedness and Cultural Characteristics." *MIS Quarterly*, **33**: 617-A7.

Roediger, T., 2010, *Methoden zur Messung des Akquisitionserfolgs*.

Schoenberg, R., 2006, "Measuring the Performance of Corporate Acquisitions: An Empirical Comparison of Alternative Metrics." *British Journal of Management*, **17**: 361-370.

Shenhar, A. J., O. Levy and D. Dvir, 1997, "Mapping the dimensions of project success." *Project Management Journal*, **28**: 5-13.

Shenhar, A. J., A. Tishler, D. Dvir, S. Lipovetsky and T. Lechler, 2002, "Refining the search for project success factors : a multivariate , typological approach." *Management*: 111-126.

Stylianou, A. C., C. J. Jeffries and S. S. Robbins, 1996, "Corporate mergers and the problems of IS integration." *Information & Management*, **31**: 203-213.

Thi, C. H. and F. W. Swierczek, 2010, "Critical success factors in project management: implication from Vietnam." *Asia Pacific Business Review*, **16**: 567-589.

Wateridge, J., 1998, "How can IS/IT projects be measured for success?" *International Journal of Project Management*, **16**: 59-63.

Webster, J. and R. T. Watson, 2002, "Analyzing the Past to Prepare for the Future: Writing a Literature Review." *MIS Quarterly*, **26**: xiii-xxiii.

Westerveld, E., 2003, "The Project Excellence Model®: linking success criteria and critical success factors." *International Journal of Project Management*, **21**: 411-418.