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*Mergers and Acquisitions in the Transportation and Logistics Sector:
A Sustainable Value Creation or Aware Value Destruction?*

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Abstract

This dissertation assesses the key factors which determine the success and failure of mergers and acquisitions specifically in the logistics industry. In particular, the objective is to find out whether mergers and acquisitions in the logistics sector are generally value driver or value destroyer from different perspectives including notably shareholders.

Mergers and acquisitions are strategic tools for companies to expand their activities in today's highly competitive business environment. Compared to organic growth and other types of co-operations such as bilateral partnerships or joint ventures, mergers and acquisitions require thorough pre analyses and the success basically depends on different factors. Even logistics companies defer to vertical and horizontal mergers and acquisitions to extend their market shares or to secure their competitiveness. However, a couple of large M&A transactions in the recent years failed due to various reasons.

While already existing academic explanatory approaches provide potential causes determining the success or failure of mergers and acquisitions, today there are no detailed investigations specifically in terms of logistics related cases available. In this context, the strategic background of mergers and acquisitions, the M&A process as an item of the M&A management and the sequence of M&A processes are investigated thoroughly as success criteria for mergers and acquisitions. Already occurred M&A transactions have demonstrated that these aspects can have a significant influence on the success or failure of the respective transaction independently from the industry, region and transaction partner. While the strategic intention builds the foundation for a promising M&A transaction, a well-developed and implemented M&A process ensures a thorough and at the same time multifaceted due diligence in the transaction stage followed by the post-integration of the target companies.

To identify regional specific drivers for the success or failure of mergers and acquisitions in the logistics industry, selected M&A transactions in Europe and China are investigated and checked with each other. Especially, the goal is to see whether local or geographic circumstances have a significant influence on mergers and acquisitions. The dissertation also targets at showing significant factors how transportation and logistics relevant mergers and acquisitions can be more promising in the future.

The success of M&A transactions usually also depends on the expertise and support of the top management of the companies involved. Therefore, this dissertation also reviews the developing literature on Chief Executive Officer (CEO) effects in mergers and acquisitions with

a specific focus on the transportation and logistics industry. Existing academic research has primarily focused on understanding why acting top managers including CEO's vacate at higher rates than usual following a merger or acquisition independent of the respective industry. In this context, one new area of inquiry is investigated by exploring how certain factors impact the turnover probability of incumbent CEO's in transportation and logistics industry related mergers and acquisitions at the time of the transaction specifically and identifying explanatory approaches. CEO turnovers within the frame of mergers and acquisitions appear to create long-term instability in the target company's business activities. This instability can influence performance and can lead to further integration attempts as the company endeavors to improve performance. Acquiring companies rather tend to keep incumbent CEO's to leverage existing customer portfolio, market knowledge and to secure contracts with key accounts. The findings of this research implicate that in particular 'Return on Assets' (ROA) has a significant influence on the decision of a CEO to leave the target company.

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Acronyms

1PL	First Party Logistics
2PL	Second Party Logistics
3PL	Third Party Logistics
AIC	Akaike Information Criterion
CAGR	Compound Annual Growth Rate
CDHK	Chinesisch-Deutsche Hochschulkolleg
CEO	Chief Executive Officer
DB	Deutsche Bahn
DTW	Tianjin Datian W. Group Co. Ltd
EBIT	Earnings before Interest and Taxes
EBITDA	Earnings before Interests, Taxes, Depreciation and Amortization
EUR	Euro
GBP	Pound Sterling
GDP	Gross Domestic Product
HR	Human Resources
IT	Information Technology
KRW	South Korean Won
KRX	Korea Exchange
KWE	Kintetsu World Express
M&A	Mergers & Acquisitions
PMO	Project Management Office
R&D	Research & Development
ROA	Return on Assets
SA	Société Anonyme
SCM	Supply Chain Management
SDC	Securities Data Company
SNCF	Société Nationale des Chemins de fer Français
SOE	State-Owned Enterprise

T&L	Transportation & Logistics
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
UPS	United Parcel Service
US	United States of America
USD	United States Dollar
WTO	World Trade Organization

1 Introduction

1.1 Motivation

1.1.1 Industry perspective

The M&A activity in 2018 demonstrated another strong period for the transportation and logistics industry in terms of the number of announced transactions (219) and the total deal value (\$115.3 billion). The deal value was mainly driven by megadeals. Strong competition for target assets in combination with investment pressure, particularly from institutional investors, has led to an outpouring in prices for companies or equity interests in the area of infrastructure, railways and airlines, with the result that numerous transactions were initially discontinued.

Moreover, global factors, such as uncertainty surrounding the China-US dispute – an example of increasing protectionism – assessed on both the logistics and the general transaction markets. Measured by the number of deals announced, 2018 disclosed a slowdown in deal activity across all industries, but the weakening in transportation and logistics is particularly strong at -22.6% compared with 2017. Transportation and logistics related industries like Retail & Consumer (+0.6%) or Industrial Manufacturing (-7.1%) display a constant level or more reasonable decline in M&A activity.

1.1.2 Regional perspective

With a share of 37%, China is the most active country in terms of transport and logistics deals worldwide: 81 out of 219 deals were with Chinese involvement in 2018. Also, China was party to most of the megadeals in 2018 (6 out of 21), predominantly in logistics and trucking. China's deal activities developed against the global trend of fewer but larger deals. In China, the highest deal number ever was observed, but the lowest deal value (\$32.6 billion) since 2014. Activities are mostly local as a result of market consolidation and internal restructuring measures. Most Chinese logistics companies are investing in the expansion of their national networks, while regulatory changes and controls hamper cross-border investments. However, some players demonstrate ambitions and strategies to grow internationally.

In Europe, the decline in M&A activity was particularly strong at -42%. This is also true for transactions with companies from the United Kingdom. Although the UK experienced an M&A

boom over the past few months, the number of transportation and logistics deals with UK targets has dropped sharply in 2018. Still, companies from the UK are involved in every third European deal in 2018. In this context, some, albeit smaller, deals that were driven by the need to strengthen supply chain ties between the UK and continental Europe have been seen. However, uncertainty about the conditions of Brexit and reactions from manufacturing and retail companies still seem to keep transportation and logistics companies from making M&A decisions.¹

1.1.3 Motives of T&L companies for mergers and acquisitions

Mergers and acquisitions are strategic tools for companies to expand their activities in today's highly competitive business environment. M&A transactions occur for a variety of reasons, although the expected result of improving a company's competitiveness or somehow adding value to a company is generally the ultimate objective of any merger or acquisition. Hovers defines the objective of any acquisition as follows: "*The main aim of every takeover is to produce advantages for both the buying and selling companies compared with the alternative situation in which both companies will continue independently.*"² If firms are profit maximizers, mergers are motivated by purely financial considerations. At any given time, a firm has several investment opportunities, one of which is to expand the size of the company. This can be done internally by building new plant and equipment, or externally by acquiring another company.

There are few specific reasons why transportation and logistics companies usually conduct merger and acquisition transactions. One of the key intentions is the extension of the network. Companies need a larger coverage of their product ranges. They have realized from the customer perspective that it can be a disadvantage not to cover specific markets. Another key motive for M&A transactions is the purchase of time and a customer portfolio which is mostly combined. Especially in the last decade, logistics providers have felt the squeeze that customers partly expect the takeover of whole value chains. This can be both geographical and intermodal. Today, customers also premise skills in different disciplines of the logistics (e.g. contract logistics). Furthermore, the decision for mergers and acquisitions usually derives from company strategies. Also growth outside of the headquarters due to limited capacity is one of the key

¹ PricewaterhouseCoopers (2019)

² Hovers (1973)

strategic reasons for M&A transactions. Therefore, mergers or acquisitions of national or international companies are often the only options to grow.

1.1.4 Personal perspective

This section describes my personal motivation for the topic of this dissertation. In my previous role as an analyst at McKinsey & Company as well as my current role as a consultant within the Lufthansa Group I was involved in a range of projects in which I conducted comprehensive due diligence activities in the course of (potential) M&A transactions from both the buyer and seller perspectives for various clients including private equity firms, airlines, airport operators, multinational logistics companies, etc. One of the key issues and challenges in such kind of projects were usually the identification of the main drivers that give direction to the success or failure of the individual M&A transaction. While these projects I have noticed that are no concrete analyses or academic papers available investigating the key success and failure factors of mergers and acquisitions in the logistics industry. This circumstance has attracted my interest to conduct a deep-dive investigation of this specific topic comprising the analysis of selected M&A cases based on comprehensive case studies to find out why merges and acquisitions of logistics companies usually succeed or fail.

1.2 Logistics industry

The global logistics market in its present state has come about as a result of an amalgamation of supply side and demand side trends. The rapid proliferation of trade agreements among various nations is the major demand driver of the global logistics market. Additionally, the initiative aimed at increasing global trade activities have expanded the demand for logistics in order to keep the pace with the rising needs of importers and exporters. According to the latest forecasts of leading research companies, the global logistics market reached a value of \$4,370 billion in 2018.

Logistics refer to the process of planning and coordinating resources and services from the point of origin to the point of consumption. This process provides efficient and effective transportation and storage of goods and services. The major components of logistics involved in the proper functioning of an organization or a business include inventory management, inbound and outbound transportation, material handling, warehousing, etc. In recent years, the

logistics industry has benefitted from the advancements made in technology, integration, and globalization. Looking forward, the market is projected to reach a value of \$6,300 billion by 2024, registering a CAGR of 4.9% during 2019-2024.³

Depending on the specific industry and the respective business model, the transportation and logistics industry can be segmented into 1st, 2nd and 3rd party logistics. The following chart gives an overview regarding the segmentation of the transportation and logistics industry:

		Industry description	Business model example
3PL	Logistics consulting	<ul style="list-style-type: none"> Provides supply chain optimization solutions to shippers to help them manage 3PL providers 	<ul style="list-style-type: none"> Constructs enterprise logistics IT systems to provide manufacturers with SCM optimization solutions
	Contract logistics	<ul style="list-style-type: none"> 3PL refers to contract logistics in its narrow sense 	<ul style="list-style-type: none"> Automotive logistics, cold chain, chemical logistics, etc.
	Freight forwarding	<ul style="list-style-type: none"> Provides international air/ocean freight forwarding services for importers/exporters, incl. customs clearance, inland transport and LCL etc. 	<ul style="list-style-type: none"> Ocean/air freight forwarding, intermodal forwarding
2PL	Express	<ul style="list-style-type: none"> Time-bound delivery services, typically for smaller cargoes, i.e. <30 kg 	<ul style="list-style-type: none"> Intermodal and domestic express services
	Air cargo	<ul style="list-style-type: none"> Airline companies provide point-to-point air cargo shipping services on both international and domestic routes 	<ul style="list-style-type: none"> All-cargo aircraft, passenger aircraft carrying cargo in the bellies
	Rail	<ul style="list-style-type: none"> Provides rail cargo transport services, mainly for SOEs 	<ul style="list-style-type: none"> Container block trains, coal charter trains, mixed trains
	Road	<ul style="list-style-type: none"> Provides road transport services for shippers 	<ul style="list-style-type: none"> FTL and LTL services
	Ocean shipping	<ul style="list-style-type: none"> Includes deep sea, coastal, and river transportation with cargo types covering containers, dry bulk, and oil products, etc. 	<ul style="list-style-type: none"> Container liners, dry bulk shippers, ship owners, ship brokers, ship management companies, etc.
	Warehousing	<ul style="list-style-type: none"> Uses own warehousing facilities to provide clients with storage and custody services 	<ul style="list-style-type: none"> General warehouse storage, sorting, cold storage, etc.
1PL	Inhouse logistics	<ul style="list-style-type: none"> Manufacturers or retailers operate logistics in-house 	<ul style="list-style-type: none"> Operates own truck transport and distribution fleets with own warehouses and inventory management

Figure 1: Segmentation of the transportation and logistics industry

1PL represents a basic form of organization of the company's own logistics. In this case, the manufacturer or retailer of goods handles transport and logistics services by using its own company units and technical resources such as cars, trailers, warehouses and internal transport vehicles.

2PL is applicable, if a manufacturer or retailer outsources transport and storage services to external logistics services providers. A 2PL operators is e.g. a carrier providing transport services to a client but without offering integrated logistics solutions. Transportation companies

³ IMARC (2019)

having their own fleet are usually specialized in a particular segment, such as maritime (e.g. Maersk), railways (e.g. DB Cargo) or air (e.g. FedEx).

3PL presents a method in which one or more logistics functions are outsourced to an external company. A 3PL operator having its resources to fulfill various tasks along the logistics chain renders a much wider range of services including transport, storage, co-packing, order picking, etc. The 3PL method is usually implemented by entities which are not focused on logistics as a main area of activity and which are at least middle-sized enterprises.

1.3. Structure of the dissertation

Section 2 of this dissertation provides an exhaustive literature on the strategic backgrounds of mergers and acquisitions, an investigation of the M&A process as an item of the M&A management with a particular focus on the process organization and the sequence of a M&A process as well as an analysis of M&A projects focusing on internal company management and M&A expertise. Already occurred M&A transactions have demonstrated that these aspects can have a significant influence on the success or failure of the respective transaction independently from the industry, region and transaction partner. While the strategic intention builds the foundation for a promising M&A transaction, a well-developed and implemented M&A process ensures a thorough and at the same time multifaceted due diligence in the transaction stage followed by the post-integration of the target companies.

Section 3 identifies relevant drivers for the success or failure of mergers and acquisitions in the transportation and logistics industry in Europe and China based on selected M&A transactions and cases, respectively. In this context, European and Chinese cases are analyzed to see whether local or geographic circumstances have a significant influence on mergers and acquisitions. Furthermore, this paper shows significant factors how transportation and logistics relevant mergers and acquisitions can be more promising in the future. The paper follows a corroborative research method and combines two research approaches comprising case study research and a questionnaire method. The research process consists of two distinct steps. First, five European and two Chinese case studies are conducted to collect relevant qualitative information based on accessible information and personal interviews with selected and the same time experienced experts with the required industrial and/or functional knowledge in the context of mergers and acquisitions in the transportation and logistics sectors.

Section 4 reviews the developing literature on Chief Executive Officer (CEO) effects in mergers and acquisitions with a specific focus on the transportation and logistics industry. One new area of inquiry is investigated how certain factors impact the turnover probability of incumbent CEO's in transportation and logistics industry related mergers and acquisitions at the time of the transaction specifically and identifying explanatory approaches.

Section 5 concludes the findings of this dissertation. Moreover, limitations as well as suggestions for future research are presented.

2 Mergers and acquisitions management – Strategic backgrounds of M&A’s, the M&A process as an object of the M&A management and the management of M&A projects⁴

2.1 Introduction

Mergers and acquisitions (M&A) presents a meaningful instrument of strategic corporate management and is both in theory and practice an unchanged current topic. Synergy hypotheses state that M&A transaction happen when the acquirer’s management think that the value of the combined firm is higher than the sum of the value of individual firms.⁵ Though constantly new, apparently ever-growing M&A transactions are reported, a major proportion of M&A projects does not lead to the desired success. The success of such a project depends on many different factors. Especially the quality of the M&A process along the different phases is a critical success factor in this context. A look in the current international business press shows that the term “Mergers and Acquisitions (M&A)” plays an essential role currently. Relevant statistics in this research area record a steady increase of both the number and volume of published M&A transactions since many years. In the light of shortened product life cycles, increasing innovation speed as well as progressive globalization, the factor “time” become more important in the implementation of strategic plans so that many companies bank on acquisitions instead of the own, generic setup of markets and competencies. Beyond that many large companies realize the necessity to part with marginal activities in order to focus on core competencies successfully. Particularly over the last while the area of mergers and acquisitions (M&A) attracted attention thanks to the current practice-orientation. The reinforced attention for M&A transactions results on the one hand from the ambitious strategic and financial goals of the parties concerned and on the other hand from the high failure rate of M&A projects, which lies around 50% according to many empirical studies. Unfortunately, the successes of M&A are often lower as previously promised since anticipated synergy effects do not ensue or are overcompensated through coordination costs.

The success of an M&A transaction depends on many different factors. Especially the quality of the M&A process along the different phases is a critical success factor in this context. A holistic management of M&A transactions becomes a central success factor.⁶ The leadership

⁴ Alparslan (2019): Mergers and acquisitions management – Strategic backgrounds of M&A’s, the M&A process as an object of the M&A management and the management of M&A projects – Unpublished Working Paper

⁵ Dogru/Erdogan/Kizildag (2018)

⁶ Lucks/Meckl (2002)

and care of M&A transactions in companies has changed considerably over time and adapted itself to the risen requirements concerning M&A processes. While a bulk of projects in previous years primarily came about arrangements between the management of the involved companies (“president to president”), leading investment houses and business consultancies gained in importance in the end of the 1980s so that companies started to carry out the processing of the whole transaction through external advisors.⁷ Independently from both extreme positions of a solely internal respectively external care of M&A transactions, especially large companies hold the opinion that the leadership and coordination of M&A transactions should be discharged by an independent, institutionalized department within the corporate headquarters (“Corporate M&A”). Here, the competence to take over the leadership of important transactions is seen as an element of the own financial claim of leadership. The interests and expectations of the corporate headquarters in professionalism shall be ensured in M&A activities, where individual transactions can decide on the success or failure of a whole corporation.⁸ In consideration of the circumstances that the department “Corporate M&A” in a large corporation often plans, steers and coordinates a variety of M&A projects with partially high financial volumes simultaneously, the assumption is obvious that the quality of work of this department is performance and thereby value relevant for a company. The ability to use the gained experiences for a variety of projects, to convert these into routines and standards, to remain nevertheless open to identify case-specific problems of individual transactions as well as to develop and implement targeted solutions is of particular importance for the success of these departments.

The aim of this research paper is to analyze the strategic backgrounds of M&A transactions in an overall context followed by a comprehensive investigation of the M&A process as an item of the M&A management as well as the general management of M&A projects highlighting their relevance and success factors for M&A transactions.

2.2 Scope and literature review

This research paper consists of three main chapters. While the first chapter provides an exhaustive literature review on the strategic backgrounds of mergers and acquisitions, the second chapter investigates the M&A process as an item of the M&A management with a

⁷ Thommen/Sauermann (1999)

⁸ Müller-Stewens (2003)

particular focus on the process organization and the sequence of a M&A process. The third chapter analyzes the management of M&A projects focusing on internal company management and M&A expertise as success factor for the management of mergers and acquisitions.

2.2.1 Strategic backgrounds of M&A

A classification of M&A into the strategic corporate management is principally necessary since M&A does not represent a self-purpose itself, but rather functions as an instrument of the strategic management. Within the scope of strategic management decisions are taken on the basis of two central determinants of the entrepreneurial success: the positioning of the company in the market and the elaboration of its resources equipment. In the strategic business area planning (also called as “portfolio planning”), it is determined in which business areas the company wants to be active in the future and how the individual business areas among themselves shall be prioritized with the regard to the resources equipment.⁹

To conceive why companies in general deal with time-, capacity- and capital-intensive M&A activities, a fundamental understanding of the motives is necessary, the management of whom is driven in the execution of M&A projects. An engagement in the motives for – and concomitant of –M&A activities has a centrality since their definition and knowing represent on the hand the prerequisite for the success measurement of M&A projects, on the other hand it is seen as the main determinant for the measure of integration of the concerned companies.¹⁰ The definition of objectives, why an M&A project is executed, expresses the indispensable foundation for a rational planning, initiation and implementation of the transaction process.

The pluralistic phrasing regarding the motives already demonstrates that there is a variety of different motives for M&A intentions which cannot be derived from one single economic theory. Due to the versatility of individual motives, the categorization of single motives in the literature takes place by different theories, so for example neo-classical, institutional economic and behavioristic approaches as well as the capital market theory.¹¹ One of the most commonly mentioned motives in the context of M&A transactions is exhaustion of synergy potentials

⁹ Hinne (2008)

¹⁰ Zwahlen (1994)

¹¹ Hinne (2008)

which serves as conceptual bracket for the subsequently shown motives. The synergy motive presents by far the most prominent in numerous studies.¹²

Improving the performance of the target company is one of the most common value-creating acquisition strategies. Put simply, you buy a company and radically reduce costs to improve margins and cash flows. In some cases, the acquirer may also take steps to accelerate revenue growth.¹³

The literature provides ample researches about motives for M&A transactions. Hereafter, the essential, in the literature discussed motives shall be each introduced and valued.

Fixed cost degression

Synergies of a merger which draw on the cost side are more often seen in the better usage and utilization of idle capacities. A decline of costs per unit will be reached through the usage of idle capacities in a rising output quantity and the concomitant distribution of fixed costs on a larger number of units. This effect is all the distinctive, the fixed costs intensive the business model of a company is.¹⁴ In the literature, the catchiest examples for fixed costs degression are adduced from the area of industrial production such as the appearance of M&A in the steel sector because of high fixed costs for needed facilities, whereby the phenomenon can be also explained by examples from the telecommunications sector (high infrastructure costs). The more efficient utilization of idle capacities presents an essential motive for horizontal mergers and acquisitions in sectors with naturally high overcapacities.¹⁵

Economies of scale

An originally alike on the context between output quantity and the reduction of costs per unit aiming approach is the attempt of size effects (economies of scale). This approach however should not mixed up with the theory of fixed costs degression since economies of scale is at the basis of another theory. In microeconomics as well as in the production theory, economies of scale (return to scale) is defined as the dependence of the production volume on the engaged

¹² Lucks/Meckl (2002)

¹³ McKinsey & Company (2010)

¹⁴ Balz/Arlinghaus (2003)

¹⁵ Hinne (2008)

production factors.¹⁶ The approach of economies of scale traces back to Adam Smith who differentiates between general, performing work and specialization during the analysis of the production factor “work”. The term is also applicable in non-production areas such as administration (overhead), distribution as well as research and development. Economies of scale has mainly three sources: specialization effects, capacity size advantages and learning curve effects.

Specialization effects reduce costs per unit since certain tasks can be processed more efficiently through specialization. Capacity size advantages are based on the assumption that the reduction of costs per unit can be also reached by a pure increase of quantities without the usage of existing idle capacities. Learning curve effects are also based on the context between the cumulative output quantity and the costs per unit. The fundamental statement of the approach developed by the Boston Consulting Group is that in the case of a doubling of the output quantity, the costs per unit – dependent on the sector – can be lowered by 15-30% through learning effects. Such effects have been proved empirically.¹⁷

The company size is still the most prevalent motive for the performing of M&A projects, although it gets minor mention in the M&A literature. The size of a company is a simply measurable objective and is - for that reason – often declared as a clear strategy. In doing so, the size itself and the circumstance that the size leads to the advantages in this context, presents a worthwhile objective of the company with the M&A intention.¹⁸ Many companies take the line that they own a competitive advantage in the market by pure size allowing to occupy a dominant role in the market and thereby better bargaining power towards customers and suppliers. Furthermore, size helps to establish a competition barrier and to make it harder for new, potential competitors to enter the market. The size often becomes a benchmark of entrepreneurial success, which – compared to organic growth – can be easily and relatively fast expressed by acquisitions. In the literature it is indeed controversial that size advantages in fact lead to competitive advantages. In this context, it is discussed about the so called “critical size” of companies since size advantages on the hand decrease after the achievement of this size and on the other hand frequently result in a bureaucratization and slowdown of decision paths.¹⁹

¹⁶ Balz/Arlinghaus (2003)

¹⁷ Hinne (2008)

¹⁸ Kogeler (1992)

¹⁹ Hinne (2008)

Economies of scope

While the above depicted cost benefits are based on a cost reduction by an increase of output quantity at the same and similar, respectively products, the approach of economies of scope describes that average total cost can be reduced by carrying experiences or competencies on another product or by using available input factors (tangible and intangible assets, technologies, etc.) in the way of a module or platform concept collectively.²⁰ The so called scope effects typically appear in the areas of product development, production or sales. Well-known examples are acquisitions in the automotive sector, where certain technologies are applied for the production of various vehicle types. The average total cost for each single product decreases since the costs of the required technology distributed among several products.

Transaction costs

The transaction costs theory provides a possible motive for the occurrence of vertical business combinations. Vertical mergers are characterized by the fact that an integration of an upstream or downstream value-added step (e.g. the acquisition of a supplier) takes place. From a transaction costs theoretical point of view, this integration is from then on explicable, if the costs in association with the initiation, negotiation, transaction and control of contracts (transaction costs) after an ensued integration are lower than the point of time, when the companies still acted independently in the market.

Time advantage

A very important motive for acquisitions is the factor “time”. By an acquisition, a market share is bought in a minimum of time which would have to generated tediously and mostly time-consuming in the way of organic growth (“time to market”). This is especially in the cases a convincing argument where a product innovation has to be capitalized within a relatively short period of time such as in the pharmaceutical area, where the patent protection of a new drug possesses a fixed defined lifetime. From a competition oriented perspective, the acquisition of a market share can be additionally of advantage since the buyer does not enter the existing market environment as a new competitor, but rather the market structure stays constant by the acquisition for the time being. For the case however that a buyer was already a market

²⁰ Balz/Arlinghaus (2003)

participant in the target market before the acquisition, the market structure changes to the effect that there exists one competitor less after the acquisition.²¹

Access to competencies and resources

Getting access to competencies and resources is seen as a substantial motive for performing M&A projects. During the persecution of this target not only the target company with its given market position is in the limelight; but rather the available competencies and resources in the target company. The purpose of an acquisition at this motive is the takeover of existing competencies and resources in the target company in order to use these following the executed transaction, to transfer these into the already existing organization of the acquirer and to combine these with own, already existing competencies and resources.²² The decisive task in doing to is to identify the existing competency in the target company and to make it actually profitably usable for the own company. Not each acquired competency of a specific company over time is freely transferable to another company. The basis of company competency of all sorts is often a specific composition of resources which represents the result of a historical and evolutionary process of accumulation of knowledge, experience and strategic assets. A company can get access to competencies by an acquisition which cannot be traded in the market and could not have been generated in a different way.

From a resources oriented perspective, the acquisition of a company is hence far more than the acquisition of physical assets of this company since an essential value component justified in resources and competencies controlled by the target company. This resources oriented perspective of M&A has also originated decisive implications for the assessment of target companies.²³ In this context, WERNERFELT has basically defined four factors for the assessment of a target company adjusting the assessment by the available resources in the target company:

- a) Which resources does the considered target have?
- b) Which of these resources presents a particular value for the acquirer?
- c) What are the expected costs for the acquirer to derive a sustainable competitive advantage from the purchased resources of the target company?

²¹ Hinne (2008)

²² Gammelgaard (1999)

²³ Hinne (2008)

d) What is the acquirer willing to pay for the resources?

WERNERFELT demonstrates the difficulty that each company disposes of specific resources and competencies, which however are available in a different composition, shape and quality.²⁴ Furthermore, the target company may dispose of a specific, unique resources equipment, where the acquirer though – for whatever reasons - cannot generate a benefit for the purpose of a sustainable competitive advantage. Therefore, the purchased resources and competencies for the acquirer are just in the case valuable, if they can be actually used, transferred and combined as necessary.

Access to existing networks

One approach which is discussed in recent literature in the context of M&A activities is the network theory. Thus, companies can perform M&A undertakings with the target to secure a certain position within a specific network.²⁵

Here, a network is defined as an organizational form of economic activities that is characterized by complex, mutual, rather cooperative than competitive as well as relatively stable relationships between economically dependent organizational units.²⁶ GAMMELGAARD defines a network analogue as “a system of relationships between firms (actors) that are dependent on each other and whose coordination of activities is of great importance.” According to that, networks are an organizational form in which two or more organizations are in a relationship through a repeated and permanent exchange relationship-. For this reason, a network stands between the organizational “pure forms” of economic activity, the market (at arm’s length) and the hierarchy (firm). A company – at the same time – will be usually connected in different networks such as a knowledge network, a research and development network, and a sales-based and procurement-based network, respectively.²⁷

With the acquisition of a company not only to the company belonging assets (properties, machines, etc.), employees as well as specific – as described above – resources and competencies are acquired. An acquisition also contains the access to all associated relationships of the target company between the system “company” and its peripheral system

²⁴ Wernerfelt (1984)

²⁵ Hinne (2008)

²⁶ Sydow (1992)

²⁷ Gammelgaard (1999)

such as the relationships with competitors, cooperation partners, customers, suppliers, research facilities, agencies, organizations and much more. Especially in particular knowledge driven sectors in the area of services, so for example the advisory sector, the motive of an M&A is often to gain the existing knowledge in the target organization and to enter ambient knowledge networks of the target company.

Existing network relationships of the companies involved play a central role in the context of M&A transactions. Though a company in the market can be understood as a self-contained system with a specific resources equipment and consequential competitive position, no company will subsist in the competition without an interaction with other companies, other groups or individuals from the business environment. As a consequence, the specific network connections of the target company have to be analyzed thoroughly during the transaction planning and have to be considered permanently in the course of the whole M&A process.²⁸

Further motives

Besides the antecedent demonstrated, entrepreneurial driven motives for M&A there are beyond that further motives which shall be illustrated outlining in the following. These are primarily financial-speculative motives as well as emotional and personal motives of participating managers.

M&A transactions are also executed by market participants whose target for the transaction is rather arbitrage considered than the entrepreneurial influence itself. Different assessments of the target company are utilized by arbitrageurs to realize a profit from the value difference in the acquisition of the company or parts of the company as well as the short-term resale. In the literature, financial and speculative motives for M&A, which are based on the differences of the underlying company valuation of the respective transaction, are traced back to the so called “Economic Disturbance Theory” of GORT and the asymmetrical distribution of the information status.²⁹

In the past, the arbitrage motive was rather less pronounced for buyers of majority shares in companies. During the boom of stock markets towards the end of the nineties such transactions – especially in the area of technology and biotech companies – with augmented speculative

²⁸ Hinne (2008)

²⁹ Vogel (2002)

motives increased.³⁰ On the one hand different information status and qualities in the area of the buyers (knowledge about the merchandising of hidden assets, tax design alternatives, political development, etc.) were seen as reasons therefor, on the other hand the propensity towards speculative motives was already solely fostered by the fact that at this point the market capitalization of many companies with their fundamental valuation apparently had less in common.

The so called “asset stripping” can be seen as a subgroup of arbitrage where a company is acquired as a whole to take advantage of the undervaluation of single assets and to realize a higher value in the divestiture of a company.

In addition to that, emotional and personal motives of participating managers can justify the accomplishment of M&A transactions. The motives of the management for the maximization of the individual benefit are summarized under the broader term of “Managerialism-Theories”. The theory tracing back to the works of BERLE and MEANS assumes that commissioned managers not only represent the interests of shareholders or further stakeholders of the company, but also primarily want to enforce personal objectives such as thirst for power, prestige, individual job security, etc.³¹

2.2.2 M&A process

In order to understand how a merger affects the success of a transaction, it is crucial to analyze M&A from a process perspective. Several researchers divided the M&A process into different phases though they differ in their attribution. Thus, the M&A process is similar to the stages of a marriage. The process could be divided into four stages: the courtship, the marriage ceremony, the honeymoon phase of a merger, and the phase after the honeymoon.³² There are basically three ideal-typical phases which illustrates the M&A process from the planning phase via the merger phase up to the implementation/integration phase.³³ The chart above gives an overview on the three M&A phases from the perspective of the acquiring company which are explained in more detail following this.³⁴

³⁰ Wirtz (2003)

³¹ Hinne (2008)

³² Hauser (2015)

³³ Galpin/Herndon (2014)

³⁴ Proft (2014)

Mergers and acquisitions occur for a variety of reasons, although the expected result of improving a company's competitiveness or somehow adding value to a company is generally the ultimate objective of any merger or acquisition.³⁵ Hovers defines the objective of any acquisition as follows: *“The main aim of every takeover is to produce advantages for both the buying and selling companies compared with the alternative situation in which both companies will continue independently.”*³⁶ If firms are profit maximizers, mergers are motivated by purely financial considerations. At any given time, a firm has several investment opportunities, one of which is to expand the size of the company. This can be done internally by building new plant and equipment, or externally by acquiring another company.³⁷

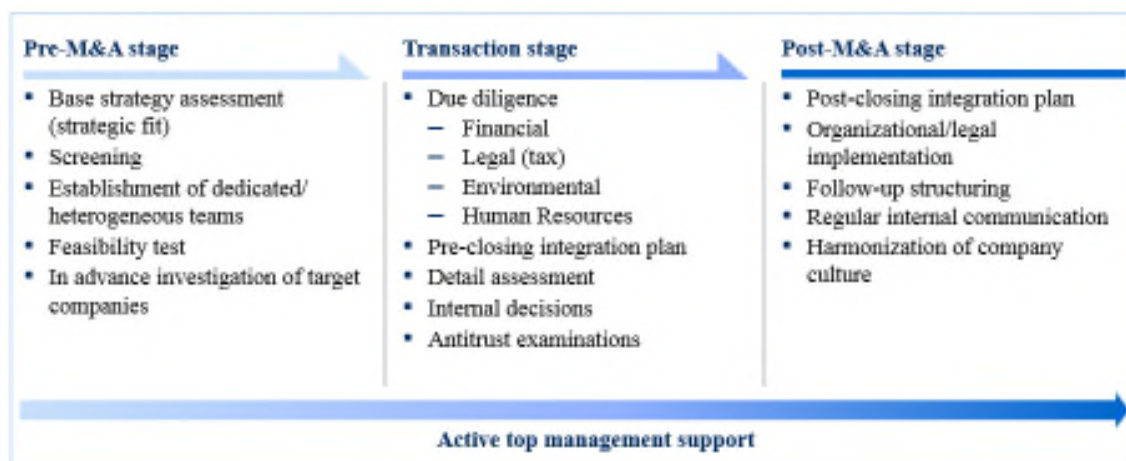


Figure 2: The M&A process

Pre-M&A phase

The pre-M&A phase is the first step in an M&A process and is especially depending on the confidential handling of benchmark figures of a transaction. This phase covers all necessary preparation such as strategy analysis and evaluation of the company's goals.³⁸ After the strategic determination of a potential buyer company to advise a M&A activity, companies usually start with the search for a partner and the selection for a partner, respectively which is also called "screening".³⁹ During the screening, different potential target companies are

³⁵ Halibozek/Kovacich (2005)

³⁶ Hovers (1973)

³⁷ Tremblay/Tremblay (2012)

³⁸ Hauser (2015)

³⁹ Freitag (2015)

assessed based on criteria that are fixed in the base strategy.⁴⁰ In this context, different groups of persons from the top management, corporate development, affected business units and external consultants are involved during the analysis of the process. Difficulties in international compared to national transactions arise from minor information transparency.⁴¹ A very important research stream in strategic management literature presumes the strategic fit as decisive for M&A success.⁴² The central argument is that high fit enlarges market power and productivity.⁴³ Representatives of the market-based view usually determine “fit” with branch codes and argue that branch relatedness has a positive effect on success via economies of scale and the reduction of redundancies.⁴⁴ Strategic fit enables companies to leverage resources and capabilities effectively.⁴⁵ Complementarities offer merging firms a wider array of business opportunities to develop competencies that either firm could not create alone.⁴⁶ Cultural incompatibility or misfit is one of the most cited reasons for the low success rates of M&A’s.⁴⁷

Main success factors in the pre-M&A phase are choice and evaluation of the strategic partner, pay the right price, size mismatches and organization, overall strategy and accumulated experience on M&A, courtship, communication before the merger or acquisition, and future compensation policy.⁴⁸

Transaction phase

Mergers and acquisitions typically involve a substantial amount of due diligence by the buyer. Before committing to the transaction, the buyer will want to ensure that it knows what it is buying and what obligations it is assuming, the nature and extent of the target company’s contingent liabilities, problematic contracts, litigation risks and intellectual property issues.⁴⁹

⁴⁰ Weber/Tarba/Öberg (2014)

⁴¹ Freitag (2015)

⁴² Homburg/Bucerius (2006)

⁴³ Cartwright (2006)

⁴⁴ Capassio/Meglio (2005)

⁴⁵ Palich/Cardinal/Miller (2000)

⁴⁶ Kim/Finkelstein (2009)

⁴⁷ Bijlsma-Frankema (2004)

⁴⁸ Tarba/Cooper/Sarala/Ahammad (2017)

⁴⁹ Caiassa/Volpe (2015)

The merger/transaction phase is dominated by the due diligence.⁵⁰ Regardless of heterogeneous definitions, a due diligence is characterized by following features:

- Creation of analyses und examinations with the aim of supply of information
- Increase of the decision quality at a legal and economically level
- A due diligence is a buy- or acquisition test in company transactions

A commercial and strategic due diligence should provide a global view of the competitive positioning of the target or future business (in the case of a partnership) and the market dynamics in which it operates. This is a prerequisite for a more thorough analysis of the main key assumptions underlying the target's business plan, which will later translate into cash flow and therefore company valuation. The commercial due diligence on a target company aims at identifying:

- Its strengths and weaknesses regarding the breakdown of its turnover (prices, volumes, segments, etc.).
- Its growth potential (emerging, stable, or declining segments).
- The risks that may impact its growth and thus the target's valuation.
- Its future potential growth adjusted from the optimistic assessment of the seller.
- The necessary areas of reinforcement of the investment project regarding the investment committee and the banks.⁵¹

A due diligence shall ensure that the buying company doesn't acquire any unknown risks with the target company.⁵² The high complexity of companies requires a due diligence that screens all functions and business units of the target.⁵³ Financial, legal and tax due diligence are popular while environmental due diligence has the lowest spread. The risk of an acquisition increases significantly as the information deficit about the target company gets larger. Due diligence reviews are an integral part of all types of mergers and acquisitions. They provide a vital tool to help organizations assess the potential liabilities in M&A transactions. A highly competitive or more difficult economic environment leads to tighter conditions for M&A projects. In this context, the success of a financial transaction is even more sensitive to the quality of the upstream strategic preparation, provided that this phase is conducted early in the M&A process and provided it follows a rigorous analysis. Post-acquisition strategic due diligences and

⁵⁰ Gole/Hilger (2009)

⁵¹ Coispeau/Luo (2015)

⁵² Lajoux/Elson (2005)

⁵³ Galpin/Herndon (2014)

adjustments made after the signing do not have the same impact on the terms and conditions of the transaction.⁵⁴ One of the main objectives of due diligence is to understand financial viability of the organization or entity involved in M&A – and its compliance applicable laws, regulations and disclosure obligations.⁵⁵ Determining the potential for a prospective merger or acquisition to create shareholder value and then keeping the promises made to the shareholders is in today's uncertain climate more critical than ever. Any acquisition or merger must start with a clear statement on how that particular action is going to generate new value for the acquirer, or in other words with a plan for creating value. Such a plan is going to include the strategic purpose, the main risks and the value drivers. Prospective acquirers, being aware of the risks they take when they decide to take part in a merger or acquisition, try to reduce the risks by conducting a thorough examination of the business prior to closing the transaction. This process is well known as a reacquisition due diligence review. The due diligence reduces the risks took as it gives the decision makers a better understanding of the targeted entity as well as of the effects of such a merger or acquisition.⁵⁶ The methodical planning and execution of a due diligence process can help identify, manage and mitigate risks associated with any merger or acquisition, dramatically increasing its chances of overall success. In due diligence, as in any other strategic business process, the board of directors can delegate the work but not the responsibility. Regardless of the way the board uses the company's resources, it must own the due diligence process, be able to defend the outcome and develop an effective plan for moving forward.

Post-M&A-phase

The last step of an effective due diligence plan is post-merger integration, which is a road map designed to guide all parties to a more complete understanding and appreciation of the cultural, strategic, operational and financial aspects of merging two institutions. Although the pre-M&A phase plays a decisive role for the success, a virtual increase in value can be reached in the post-merger phase.⁵⁷ The integration phase is the key for a successful acquisition, where the realization of synergies and cost cutting wouldn't have been possible. Crucial steps in this phase are planning, implementation and lastly control. In the integration conception companies initially determine individual measures as well as the integration speed and the degree of

⁵⁴ Coispeau/Luo (2015)

⁵⁵ Kusserow (2013)

⁵⁶ Nachescu (2010)

⁵⁷ Vicari (1994)

integration.⁵⁸ The post-merger integration phase is often cited to be decisive for M&A's.⁵⁹ In the post-merger integration phase, well-established operational sequences and patterns are partially or completely changed and, throughout the new company, harmonized. Therefore, this phase is – due to employee resistance and a cultural clash – very risky.⁶⁰ It is proposed that leaders should take account of human and cultural factors in mergers and acquisitions.⁶¹ Post-merger integration strategies should be formulated throughout the due diligence process and often work best by having key members steering the post-merger integration process involved from the onset of due diligence.⁶² Due diligence with respect to organization can gain strategic advantage if involves HR in the mergers and acquisitions on the deal table. By doing this many of the seen and unforeseen troubles can be averted. In the pre-merger and acquisition stage Human Resources has to analyze strategic expectations of employees and must alert the due diligence team to the ways people and related organizational and cultural issues can affect the deal's key strategic assumptions.⁶³ Acquisitions produce complex organizational challenges. For this reason individual and organizational experience are essential to avoid integration difficulties. For example, on the individual level, the absence of acquisition experience could make a CEO particularly vulnerable regarding the escalation of commitment that could lead to the completion of deals at unreasonably high costs.⁶⁴ According to Hayward, acquisition experience is a principal mechanism through which companies obtain the necessary skills. M&A's generate complex organizational challenges, and individual as well as organizational experience may be necessary to avoid integration problems.⁶⁵ The integration phase usually follows the official announcement of the M&A and is promoted by top management and by expanded workforce members for integration of the organizational structures, business processes, and management systems. Typically, this begins after the deal is concluded legally, but may begin before completion of the deal.⁶⁶ Integration is a complex process that requires a large number of activities and great attention to detail to create a new entity that can satisfy the overall strategic objectives of the partners. It is an evolutionary process that involves decisions about the level of integration, organizational and national culture's combination and human

⁵⁸ Haspeslagh/Jemison (1991)

⁵⁹ Stahl/Voigt (2008)

⁶⁰ Buono/Bowditch (2003)

⁶¹ Kavanagh/Ashkanasy (2006)

⁶² Childs (2007)

⁶³ Jain (2014)

⁶⁴ Haspeslagh/Jemison (1993)

⁶⁵ Hayward (2002)

⁶⁶ Shibayama/Tanikawa/Kimura (2011)

capital management.⁶⁷ During the integration phase, merged firms face challenges to remove duplicate functions, achieve economies of scale, and increase capabilities, technology or intellectual capital.⁶⁸ Post-closing challenges raise a wide variety of human fears and uncertainties that must be understood and addressed by both the buyer and the seller. The fear of the unknown experienced by the seller's employees must be addressed and put to rest; otherwise, the employees' stress and distraction will affect the seller's performance and the viability of the transaction. The need to integrate the two corporate cultures quickly also raises personal and psychological issues that must be addressed. In attempting to realize the true value of a merger or acquisition, the buyer must coordinate a smooth and efficient post-closing process. Important issues that need to be managed fall into three areas: people, places, and things. Some issues are addressed in the closing documents. Most require forethought in order to anticipate potential pitfalls. Some of the strategic issues that must be addressed and some of the more common problems include amongst others a lack of communication, weak leadership, mistakes made in the due diligence process, cultural differences, inexperience among executives or advisors and underestimated stakeholder resistance. The bottom line is that if the buyer doesn't plan to address the following issues, the chances for failure or for not fully realizing success are greatly increased.⁶⁹

Even though the transaction phase is decisive for the success of the post-merger phase, experts argue that the post-M&A phase is responsible for the success or failure of the merger. In order to realize the potential synergies and achieve the expected added value, the merging companies have to integrate successfully. Hence integration is the key to post-merger success. Therefore, managers from both companies have to work together for the purpose of creating an atmosphere that allows transfer of resources and skills. The goal is to adapt, coordinate, and change and to set up common structures and processes. Effective communication, understanding and respect are needed in order to create an atmosphere that promotes the transfer and integration of capabilities. In addition to that, effective communication and willingness to cooperate are crucial for making the merger or acquisition a success story.⁷⁰

⁶⁷ Caiazza/Volpe (2015)

⁶⁸ Mercer (2009)

⁶⁹ Sherman (2011)

⁷⁰ Hauser (2015)

2.2.3 Management of M&A projects

M&A projects depict exceptional complex projects with the result that a successful execution of these projects needs a carefully thought out and structured steering, which requires a capable and equally flexible organizational form. In the light of the heterogeneity of the executory tasks as well as the participating actors in each individual project it is necessary that different and partly ample know-how in high quality can be provided at short notice. The requirements as a consequence thereof, which are set by such projects concerning the organization of M&A projects, are immense. Companies executing M&A activities have different opportunities to shape the M&A management organizationally.

Related to the organizational arrangement of the M&A management it should be considered that the management of M&A projects has to be observed on two different levels. On the one hand this is the level of the institutionalized M&A organization whose task and competency is the management of all activities related to the M&A process. While the institutionalized M&A organization (depending on their individual configuration shape) represents a temporary anchored function in the organizational structure for the fulfillment of the tasks related to the M&A management, a forming project organization for each single M&A project is temporary established. The project organization of a specific M&A project will only be built in advance and is terminated during or after the completion of integration phase of that project.⁷¹

Especially project management skills contribute to the success of mergers and acquisitions. To deliver the expected value of the acquisition, the acquisition project (or program) needs to address all facets of the acquisition described in the first parts of this research paper to ensure that the appropriate processes are applied to capture and manage synergies and to ensure that organizations are integrated to the degree required. As for all types of projects, the acquisition project needs to include “clear deliverables, due dates and milestones, resources, assigned roles and responsibilities, as well as a list of contingencies – with corresponding contingency plans and information flows”.⁷² In addition, the M&A project needs to ensure that it is adequately resourced. For as shown by the following figure, “once the deal closes”, the time required of management and supporting staff is often underestimated.⁷³

⁷¹ Hinne (2008)

⁷² Wolf (2003)

⁷³ Crosby et al. (2006)

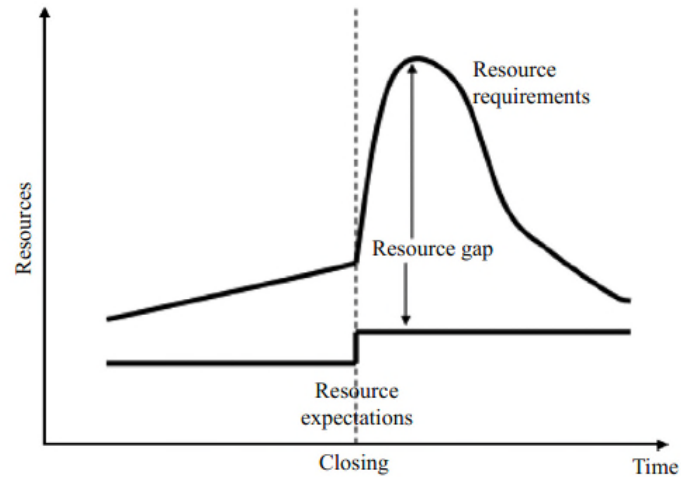


Figure 3: Resource Considerations

Again as with all projects, the M&A project should attempt to “codify” project experiences because each deal represents a valuable lesson that can potentially be “collected, documented and incorporated into a roadmap process for integration.”⁷⁴ However, it is also worth noting that whilst lessons learned from past acquisitions will prove useful, organizations must overstate what can be learnt from experience, because all acquisitions are different to some degree.⁷⁵ To ensure that the acquisition process remains “on track” and can be reported as such (to the board, analysts, and investors), a “robust integration measurement” needs to be put in place.⁷⁶ To ensure a focus on short-, medium- and long-term benefits, the measures need to be broader than the common set of cost, time and synergy metrics.⁷⁷ They also need to measure the integration process (e.g. employee feedback), operations (e.g. customer retention and satisfaction surveys) and organizational culture (e.g. employee performance and absenteeism). In the context of performance measurement, it is also worth noting that acquisition integration projects present acquiring organizations with the relatively rare opportunity to gain step-function improvements in business value.⁷⁸

⁷⁴ Wolf (2003)

⁷⁵ Nogeste (2010)

⁷⁶ Galpin (2006)

⁷⁷ Nogeste (2010)

⁷⁸ Vester (2002)

Internal management of M&A projects

The formation shape of the internal M&A management is characterized by the fact that the management of M&A projects during all phases of the M&A process is executed in the responsibility of one or multiple internal organizational units. The literature discusses different configuration shapes, dependent on the question to which area of accountability in the company the management should be allocated. In the following, the different configuration shapes are shortly outlined and described based on their respective characteristics. SAUERMAN makes a distinction of the organizational configuration of the internal M&A management through the corporate management, individual specialized departments, operative departments or an institutionalized M&A department.⁷⁹

M&A management through the corporate management

At this organizational concept the M&A management is directly taken over by the corporate management. Depending on the respective legal form of the company, the executive board, management or owner is responsible for the M&A management. Supervisory bodies (board of directors) as well as supporting or advising executive departments are to be added on the corporate management in a broader sense. In the light of the time-limited availability of the corporate management, executive departments are usually integrated into the decision preparation and often take over coordinating functions in the course of M&A projects.

In view of the original tasks of the corporate management and the associated capacity utilization, it stands to reason that an M&A management in this organizational shape cannot span over all phases and process steps to the same extent, but rather focuses on a few, a couple of sub-processes of particular importance which justify a direct lead through the top management. This is normally about the definition of the M&A strategy, the selection of potential transaction partners as well as the execution of contract negotiations. Other sub-processes and tasks are usually delegated to departments with a special know-how (tax department, accounting, controlling, etc.) so that the corporate management is primarily responsible for the control function.

The direct takeover of the M&A management by the corporate management leads necessarily to a centralization of the execution of M&A process. In this organizational concept, the freedom

⁷⁹ Thommen/Sauermann (1999)

of decision and the procedural responsibility correspond with each other which can mean an advantage regarding the process speed a M&A transaction. By doing this, the process will not be delayed through internal queries and safeguards or won't be lengthened by time consuming coordination phases. If the corporate management takes over the task of the M&A management, it will be ensured that the M&A strategy is consistent with the corporate strategy. Another advantage of the M&A management through the corporate management is the signaling effect to the outside demonstrating the seriousness of the transaction intention and availability of the necessary "management attention". Especially during the first contact to a potential acquisition target as well as contract negotiations the signaling effect is of particular importance in practice.

By the fact that the M&A management in this organizational concept is focusing on single, essential process steps of the entire process, a consistent and holistic steering of the M&A process is complicated and ordinarily not ensured. Potentially, small, however success relevant details in the transaction process might find too little consideration. As a consequence, the pursued objective of the M&A strategy can be missed.⁸⁰

M&A management through different specialized departments

The M&A management basically can be also conducted by already existing specialized departments. It is obvious that the M&A management is divided into those specialized departments or it should be executed by specialized departments which dispose of the respective knowledge for the different, to be fulfilled tasks in the course of the M&A management. Usually, especially the departments corporate development/strategy, finance and accounting, controlling, human resources, legal and taxes are involved in the M&A process.⁸¹

The M&A management can be accountably executed by the strategy department since the necessary know-how in the phases of initiation, strategy development as well as the search and selection of potential transaction partners is available. Furthermore, the strategy department of a company can secure and evaluate the compliance of responsible M&A projects with the superior corporate strategy, which transaction object fits best into the portfolio of the respective company. The M&A management can be also performed by finance and controlling departments that possess specific knowledge in company valuation, the deployment of a business plan as well as the financing of a transaction. It is also imaginable that the M&A

⁸⁰ Hinne (2008)

⁸¹ Vogel (2002)

management is executed by the legal department which can contribute its legal know-how and coordinates all, M&A specific management services of other specialized departments.

A successful M&A through specialized departments assumes that these departments dispose of the necessary know-how related to the steering of M&A processes. Specialized departments keep professional and special know-in their department's ready leading to relatively fast as well as high-quality results in the individual phases of a transaction. However, none specialized department will be able to guide the management of the whole M&A process with sufficient competencies. In addition to that, it has to be considered that in this form of organization single specialized departments vary widely regarding their original tasks which – beside often occurring capacity problems - inevitably leads to certain content focus areas in the execution of the M&A management.⁸²

In general, all specialized departments can be either formed as so called instances, central or executive departments, which essentially depends on the organizational structure of the respective company. Single departments are equipped with certain competencies and decisional authorities subject to the respective organization. So, the departments of finance, human resources and controlling in functionally segmented company are usually pronounced as instances and are immediately under the corporate management. While instances are equipped with respective competencies and right of directions, central departments dispose of constrained and executive departments of no about it. Independently, to which specialized department the management of M&A projects is assigned, for a successful M&A management it is meaningful that the respective department is armed with particular competencies and disposes of decision power of attorney and respective decisional authorities towards possibly – through the M&A transaction - affected departments, line managers as well as other participants.⁸³

As long as the M&A management is not executed and taken responsible by a single specialized department, the nomination of a project leadership is absolutely necessary which takes over the lead of responsibility. In this case, the steering of a project is normally taken care by a dedicated project leadership in the form of a matrix organization. A delegation of M&A projects and associated responsibility between departments should absolutely be avoided. This especially applies in the light of the necessity of a consistent and holistic leadership.

⁸² Lucks/Meckl (2002)

⁸³ Hinne (2008)

Furthermore, the risk should be avoided that important information get lost during the transfer of an M&A project to another departments.⁸⁴

M&A management through operative departments

If M&A transactions primarily concern single areas of a company, it is conceivable to put the respective operative units in charge of the M&A management. Thereby the operative area takes over the management task which is most affected by the transaction. Such an area can either be led as a legally dependent business area of a company or as an independent legal entity (subsidiary).

The management of an M&A in this organizational concept will be usually conducted by the management of the respective operative area in close collaboration with relevant specialized departments of the area as well as the parent company. Since the management of the corresponding operative area will be widely stretched with their distinct task and the task of M&A management represents a rather seldom duty for the operative area, it will be reliant on the support and advisory from the own area as well as the parent company if necessary.⁸⁵

The organizational concept has the advantage that the M&A management can be executed out of the operative area of the company, in which the advantages of the transaction should be realized. The integration task has to be accomplished by the area which takes the responsibility of the whole M&A process, whereby there will be usually an early focus on the integration phase during the execution of the transaction. As long as the M&A transaction is driven by the initiative of the respective area, it can be assumed that the expected synergies are associated with a more realistic estimation in this organizational form since the transaction is initiated by the area which is measured and assessed by the realization of synergies subsequently.

In this organizational form problems appear if the initiative of the M&A transaction comes out of the superior company and group management from the area and the transaction does not happen by mutual consent with the business management of the respective area. In addition to that, at this organizational concept the same disadvantages can be mentioned as presented above. A holistic and consistent management of an M&A in this concept is also complicated by the fact that persons and departments entrusted with the M&A management have to fulfill

⁸⁴ Thommen/Sauermann (1999)

⁸⁵ Hinne (2008)

their original functions, thus do not necessarily dispose of free, additional capacities. Beside the capacity issue the management of an operative area won't have the special know-how to lead an M&A process through all phases responsibly. Even in this organizational form the management of an M&A requires a focus on just a few process steps, while potentially other, however success relevant process steps cannot get the necessary attention if applicable.

Management of M&A's through an independent M&A department

A holistic, internal M&A management from a single source is simplified, if an independent M&A department is built up. It can basically supervise all phases of an M&A process. Depending on the existing special knowledge of the individual employees and the ensuing service portfolio of such a department, under certain conditions it can be still necessary to bring in experts from other areas of the company for the solution of certain tasks.

In the context of M&A management, an M&A department often fulfills additional, besides the management of M&A projects exceeding activities. This department usually takes over other, acquisition management related tasks such as participation controlling or the corporate care.

The establishment of an own internal M&A department allows the institutionalized setup of M&A specific knowledge in the company.⁸⁶ The pooling of M&A activities in an organized unit entails that the experiences and knowledge gained in M&A projects don't drain off, but are ideally used and transferred into routines and standards. Since employees are usually not exposed to a double burden in this organizational form, but rather the M&A management represents their original function, it can be assumed that the support density as well as quality in this organizational form compared to other organizational concepts of the internal M&A management is the highest. Basically, three possibilities are distinguished how an internal M&A department in a company can look like.⁸⁷

If an M&A department is arranged as an executive department, it is usually directly under the control of the corporate management and has the task to advise these in the course of M&A transactions. Normally, it possesses absolutely no power to direct towards line functions, whereas it dispose of copious decision competencies. The closeness to the top management can

⁸⁶ Haspelslagh/Jemison (1991)

⁸⁷ Thommen/Sauermann (1999)

be judged favorably, since necessary consultations during M&A transactions can happen at a great pace. In operative business areas, where – during M&A intentions - the M&A department in most cases is serving as a service provider, the nearness to the top management however can meet with disapproval as executive departments are regarded as “lacking in practical relevance” in the operational environment. The depicted problems of acceptance can present a challenge in the course of an M&A process since a close and trustful collaboration between the M&A department as well as the operational division leadership often represents an essential requirement for a successful M&A management.

The alignment of an M&A department as a central area is the second opportunity for an organizational formation. This central area can remain beside or above other business areas hierarchically. In the case of an organizational formation as a central area functions concerned with the management of M&A’s are outsourced and centralized out of the business areas. Background is often the intention that involved business areas act in the interests of the whole company or group during M&A transactions. The problems of acceptance in operative business areas apply here as well.

As a third opportunity, the M&A department can be led as an own business area, which even can be equipped with an own legal personality if applicable. In this case, it appears as a legally independent M&A provider that provides its services not only to the own group if any, but also to external third parties.

In view of the fact that M&A activities do present one-time or at least rare events for certain companies, it is evident that the establishment of such a department requires a certain frequency of M&A transactions. The establishment as well as the permanent availability of capacities for the creation of all services during the management of M&A projects were inefficient, if the capacities are not required in a certain continuity and are respectively used.⁸⁸

⁸⁸ Hinne (2008)

2.3 Results and discussion

The exhaustive literature review has demonstrated the potential impact of strategic intentions for M&A transactions. Thus, the motivation for M&A transactions can be explained either via single or multiple factors including aspects such as fixed cost depression, economies of scale, economies of scope, transaction costs and access to competencies and resources. In this context, one of the main success factors from the M&A transaction's point of view is the positive correlation and supplement of the relevant strategic factors. Mutually repellent strategic objectives however might represent a non-negligible risk factor for the success of an upcoming or pending M&A transaction. For that reason, all contemplable strategic intentions must be thoroughly analyzed and evaluated.

The definition of strategic objectives (pre-M&A phase) builds the foundation of the M&A process followed by the transaction stage and the post-M&A stage. The stronger the base of an M&A transaction, the higher the success probability of the respective transaction. A stable pre-M&A phase provides the necessary requirements for a comprehensive due diligence and detailed assessment of the target company to ensure that the acquiring company gets familiar with all relevant characteristics of the target company, its obligations, contingent liabilities as well as potential litigation risks.

Furthermore, the literature review has shown that companies executing M&A activities must find the right organizational balance and setup to warrant a promising M&A transaction. In this case, the ideal organizational setup is characterized by a high degree of flexibility, individual technical and social skills as well as clearly defined responsibilities to ensure a scheduled and smooth progress of the M&A transaction. In summary, it can be stated that the planning and execution of M&A intentions represent a complex process which requires a solid preparation in the first instance.

2.4 Conclusion

The objective of the research paper at hand was to provide a comprehensive literature review focusing on strategic motives of M&A intentions, the ideal set up and procedure of an M&A transaction and the importance of a dedicated team for the management of the respective M&A transaction. In an overall context, the management of M&A projects has been analyzed and the potential scope for action of the M&A management has been categorized.

The varying explanation attempts and motives of M&A are not mutually exclusive, but are rather seen as mutual supplement by highlighting different aspects of M&A. It should be noticed that some of the described approaches deliver common arguments for a general corporate growth and do only partly and under certain conditions speak for an external growth by means of a M&A activity. The World Investment Report published by UNCTAD has identified two arguments in the course of a copious investigation which exclusively speak for an external growth: the time advantage companies have via an M&A versus the alternative of a generic (organic) growth as well as the access to specific competencies and resources (e.g. know-how).

In view of the fact that an M&A process can be presented as a process composed of various single steps, the M&A process has been argued, which builds the object of the M&A management. On the basis of a suitable process model single sub-processes of an M&A project were presented and their characteristics worked out. Following this, individual activities in the respective phases of an M&A process (pre-M&A stage, transaction stage, post-M&A stage) were described, specifics discussed and assessed in an overall context.

It also turned out that a holistic, internal M&A management from a single source can be only enabled by a setup of an independent M&A department. Stress was laid on the circumstance that the existence of an institutionalized M&A department does not implicate inconclusively an exclusive internal execution of the M&A management, since external M&A advisors nevertheless can be brought in for single sub-processes of an M&A project. M&A competency was appreciated as an essential success factor in the course of the management of M&A projects. After the definition of the term "M&A competency" it has been worked out, about which features M&A competencies dispose of and how these can be built and gained in the long-term. In reference to existing insights from the learning theory it has been clarified that the structure of an internal M&A department does provide the best opportunity to build M&A specific knowledge, to keep it within the company and to make it available in this institutionalized form for the company.

3 Mergers and acquisitions in the transportation and logistics sector in Europe and China: A sustainable value creation or aware value destruction? – A case study-based analysis⁸⁹

3.1 Introduction

In 2017, merger and acquisition activities of transportation and logistics companies have seen a positive development globally when measured by total deal value. The overall increase in total deal value can largely be attributed to the drop in fuel and shipping costs. From the seller perspective it is a good time to achieve liquidity and a favorable time for buyers to acquire strategic and growing assets. Especially a few announced megadeal activities led to an average deal value of USD 564 million. One of the main transactions was the acquisition of Norbert Dentressangle SA, a leading global provider of contract logistics and freight forwarding, by XPO Logistics with a transaction value of USD 3.53 billion. XPO Logistics has become a top ten worldwide logistics company after the acquisition. In April 2015, FedEx announced to launch a tender offer to acquire the entire share capital of Netherlands-based TNT Express. This all-cash acquisition, valued at almost USD 4.8 billion, is expected to improve FedEx's European capabilities and accelerate global growth. At the completion of the transaction, FedEx will become the largest package delivery provider in Europe. Today, financial investors such as private equity firms are playing a significant role in driving deal activity. Governments in both emerging and mature markets lack the financial flexibility increasingly to ensure sufficient investment in infrastructure. This increase comes from private investors who are in turn in search of stable sources of income. The value of merger and acquisition in the transportation and logistics space trailed intense takeover activity in the healthcare, pharmaceuticals and life sciences, retail and energy sectors, but surpassed the amount in technology, utilities, aerospace and defense, manufacturing and chemicals.

In the last few years, the transportation and logistics industries' merger and acquisition approach has become increasingly focused. Providers basically face the challenge of making the right strategic decisions. They need to develop their current customer/region portfolio to secure access to growth markets and high-margin business activities in an increasingly commoditized environment. However, merger and acquisition decisions are usually subjected

⁸⁹ Alparslan/Spinler (2019): Mergers and acquisitions in the transportation and logistics sector in Europe and China: A sustainable value creation or aware value destruction? – A case study-based analysis - Unpublished Working Paper

to non-predictable risks. Merger and acquisition activity can be a boon to revenues or synergy generation, as many of the world's leading transportation and logistics companies have demonstrated over the last few years. Nevertheless, in many cases merger and acquisition transactions failed due to various reasons:

- Buys were too often being by opportunity, rather than a sound growth strategy, backed by effective due diligence
- Integration of acquired companies into current structures and networks, because not fully planned, was often more difficult and took longer than anticipated
- Common internal industry problems were negatively impacting profitable baseline/organic growth and exacerbating the challenges of merger and acquisition (e.g. fragmentation of networks, structures, processes and systems, creating redundancies and misalignment across organizations)

The above-mentioned points are just an extract of possible reasons which can lead to a transaction failure. A deep analysis of former transactions can provide valuable insights for acquiring companies to keep the success rate as high as possible. It demonstrates the key mistakes in the different stages along the merger and acquisitions process and enables a timely opportunity to adopt necessary measures. A range of merger and acquisition transactions still fail today which are partially attributable to non-predictable reasons. Nevertheless, most failed transactions are self-imposed as for instance companies set wrong priorities or general circumstances were unfavorable.

China's economic reforms and robust growth have fueled an increased pace of M&A activity in recent years. Inward M&A transactions offering immediate access to a very competitive market are becoming an increasing attractive alternative to green field investments. In addition, outward M&A investments are booming, as many more Chinese companies need, and can pursue, opportunities overseas. In the current Chinese market, there are many benefits of using M&A over establishing new companies. Investors are not able to forgo lengthy set up processes, but can analyze the situation, know the existing problems and prepare for the exact market they are about to enter.⁹⁰ Today, China is one of the most popular foreign investment destinations in the world. Making use of foreign investment is an important part of China's fundamental national policy of opening-up. China has also been rigorously implementing measures to honor its commitments for its accession to the World Trade Organization (WTO) by lifting controls

⁹⁰ Devonshire-Ellis/Scott/Woollard (2011)

over the right to engage in foreign trade, significantly reducing the entry threshold for foreign investment, remarkably increasing the level of liberalization and facilitation of trade and investment and improving the opening-up and regulation standard of commercial environment.⁹¹

It was a noteworthy year for merger and acquisition (M&A) activity in the transportation and logistics industry, as total deals represented an increase in volume and value over 2016 of 18% and 5%, respectively. Primarily attributed to a considerable spike in megadeals (transactions valued at USD 1 billion or more), 2017 closed with USD 125.5 billion in announced deals. Continuing the trend from 2016, passenger air and passenger ground drove the value increase, with these sub-industries accounting for 6 of the 10 largest deals of 2017. Shipping and logistics were behind the growth in volume, with both of these sub-sectors experiencing over 30% year on year growth in the number of deals. Within the shipping industry, an oversupply of large shipping vessels and leveraging economies of scale drove M&A and strategic alliances as companies aimed to sustain competitiveness during the industry downturn. Other modes of transportation were also active in the 2017 deal-making landscape including trucking, logistics and passenger ground. Transactions involving Asia and Oceania once again dominated deal activity in 2017 with 163 deals worth \$55.3 billion. Most the deals in this region involved China and were primarily driven by the decelerating Chinese economy as reduced growth projections caused overall softness in valuations and equity markets, leading to an increased number of attractive acquisition targets and industry exits.⁹² Today, China spends a much larger percentage of GDP on infrastructure projects (11%) as compared to other countries such as the US (2%). Historically, much of the country's infrastructure has been centered along eastern China because of the importance of exports. Rising wages and land costs in the coastal provinces resulted in manufacturers to move production inland to cut costs. This had strained China's ability to transport goods within the country, prompting a spending program the size of the Swiss economy during the past few years on roads, railways and airports. China's government has been encouraging development of the interior regions for more than a decade now, but foreign-invested enterprises have been reluctant to answer the call due to concerns about lagging infrastructure, limited access to talent, and logistics challenges. However, as

⁹¹ Germany Trade & Invest (2015)

⁹² PricewaterhouseCoopers (2018)

labor costs continue to rise and infrastructure continues to improve, more manufacturers are relocating to the western regions of China.⁹³

One of the key challenges for the senior management of industry leaders has become the position of their companies on emerging markets and, in China. Building a strong position in China requires significant human and financial investments and implies successful cooperation with regional and national players. For investors and senior management of the world's largest companies, partnerships and M&A remain crucial instruments for quickly ensuring a lasting presence on this huge, complex, and hypercompetitive market. The size and dynamics of the Chinese market alone are not a sufficient guarantee of success for an M&A operation or a strategic partnership. Local and international competition is fierce, the legal framework still flexible and sometimes soft. Industry consolidation strategies must be assessed in the light of China's tremendous capacity to self-generate new entrepreneurs trained in the best universities locally or abroad, and capable and develop faster than foreigners into the Chinese industrial web. However, this can be a long-term objective for a specific and well-defined product range.⁹⁴

The aim of this research paper is to investigate selected M&A transactions in the logistics industry in order to identify the key factors leading to a success or a failure of the respective transaction.

3.2 Outline

3.2.1 *Scope*

This research paper aims to identify and highlight the main qualitative success/failure drivers for mergers and acquisitions in the transportation and logistics industry in Europe and China by applying the case study research method on selected M&A transactions along the M&A process chain consisting of the Pre-M&A-stage, transaction stage and the Post-M&A-stage. The fact of investigating M&A transactions in Europe and China aims to identify geographic specifics that influence the success/failure of M&A transactions in the respective region. It also targets to demonstrate possible deviations of the M&A transactions from traditional M&A processes, which will be demonstrated in a self-developed framework as a result of the detailed literature review on the M&A process. Despite numerous literature on qualitative success criteria for

⁹³ GSCI Transport Intelligence (2016)

⁹⁴ Coispeau/Luo (2015)

M&A transactions, there are no scientific insights and literature on the main qualitative reasons for the success and failure of mergers and acquisitions in the transportation and logistics industry industries specifically. In this context, the term logistics and transportation are broader defined and comprises both passenger and freight transportation. The paper contributes to the literature in several ways. A thorough review of existing literature and a detailed analysis of historical M&A transactions in other industries in China allow to hypothesize that ‘relationship’ also plays a central role in transportation and logistics related M&A transactions. The same applies to the importance of commercial aspects across the M&A process. Furthermore, the proactive willingness of companies to involve employees from the target company closely into the M&A process and the establishment of dedicated integration teams seems to be a positive driver for the success of M&A transactions. Selected case studies aim to corroborate these hypotheses for M&A transactions in the transportation and logistics sector in Europe and China.

3.2.2 M&A objectives, process and key success/failure factors

Mergers and acquisitions occur for a variety of reasons, although the expected result of improving a company’s competitiveness or somehow adding value to a company is generally the ultimate objective of any merger or acquisition.⁹⁵ Hovers defines the objective of any acquisition as follows: *“The main aim of every takeover is to produce advantages for both the buying and selling companies compared with the alternative situation in which both companies will continue independently.”*⁹⁶ If firms are profit maximizers, mergers are motivated by purely financial considerations. At any given time, a firm has several investment opportunities, one of which is to expand the size of the company. This can be done internally by building new plant and equipment, or externally by acquiring another company.⁹⁷

There are basically three ideal-typical phases which illustrates the M&A process from the planning phase via the merger phase up to the implementation/integration phase.⁹⁸ The following chart gives an overview on the three M&A phases from the perspective of the acquiring company which are explained in more detail following this.⁹⁹

⁹⁵ Halibozek/Kovacich (2005)

⁹⁶ Hovers (1973)

⁹⁷ Tremblay/Tremblay (2012)

⁹⁸ Galpin/Herndon (2014)

⁹⁹ Proft (2014)

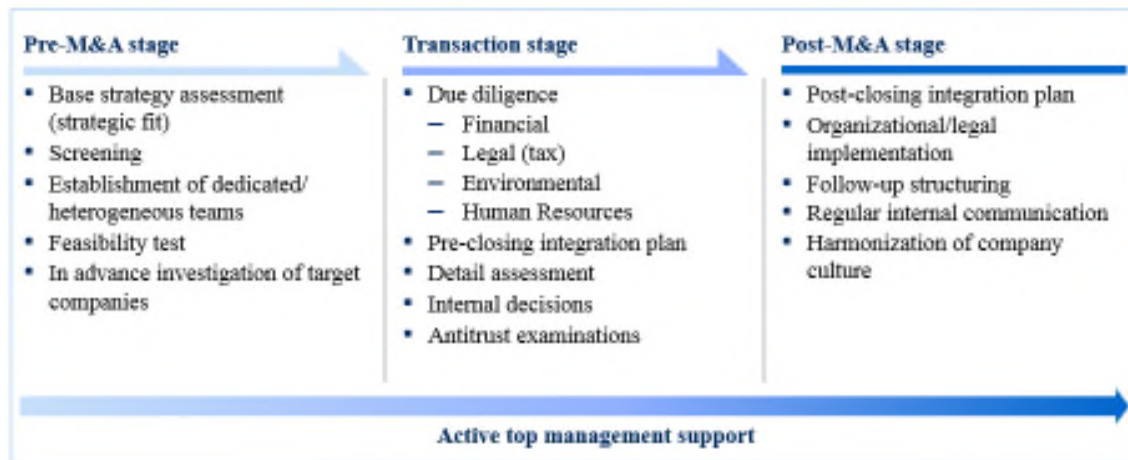


Figure 4: The M&A process

The pre-M&A phase is the first step in an M&A process and is especially depending on the confidential handling of benchmark figures of a transaction. After the strategic determination of a potential buyer company to advise a M&A activity, companies usually start with the search for a partner and the selection for a partner, respectively which is also called “screening”.¹⁰⁰ During the screening, different potential target companies are assessed based on criteria that are fixed in the base strategy.¹⁰¹ In this context, different groups of persons from the top management, corporate development, affected business units and external consultants are involved during the analysis of the process. Difficulties in international compared to national transactions arise from minor information transparency.¹⁰² The merger/transaction phase is dominated by the due diligence.¹⁰³ Despite heterogeneous definitions, a due diligence is characterized by following features:

- Creation of analyses und examinations with the aim of supply of information
- Increase of the decision quality at a legal and economically level
- A due diligence is a buy- or acquisition test in company transactions

A due diligence shall ensure that the buying company doesn’t acquire any unknown risks with the target company.¹⁰⁴ The high complexity of companies requires a due diligence that screens

¹⁰⁰ Freitag (2015)

¹⁰¹ Weber/Tarba/Öberg (2014)

¹⁰² Freitag (2015)

¹⁰³ Gole/Hilger (2009)

¹⁰⁴ Lajoux/Elson (2005)

all functions and business units of the target.¹⁰⁵ Financial, legal and tax due diligence are popular while environmental due diligence has the lowest spread. The risk of an acquisition increases significantly as the information deficit about the target company gets larger. Although the pre-M&A phase plays a decisive role for the success, a virtual increase in value can be reached in the post-merger phase.¹⁰⁶ The integration phase is the key for a successful acquisition, where the realization of synergies and cost cutting wouldn't have been possible.¹⁰⁷ Crucial steps in this phase are planning, implementation and lastly control. In the integration conception companies initially determine individual measures as well as the integration speed and the degree of integration.¹⁰⁸

A very important research stream in strategic management literature presumes the strategic fit as decisive for M&A success.¹⁰⁹ The central argument is that high fit enlarges market power and productivity.¹¹⁰ Representatives of the market-based view usually determine "fit" with branch codes and argue that branch relatedness has a positive effect on success via economies of scale and the reduction of redundancies.¹¹¹ Strategic fit enables companies to leverage resources and capabilities effectively.¹¹² Complementarities offer merging firms a wider array of business opportunities to develop competencies that either firm could not create alone.¹¹³ Cultural incompatibility or misfit is one of the most cited reasons for the low success rates of M&A's.¹¹⁴ The post-merger integration phase is often cited to be decisive for M&A's.¹¹⁵ In the post-merger integration phase, well-established operational sequences and patterns are partially or completely changed and, throughout the new company, harmonized. Therefore, this phase is – due to employee resistance and a cultural clash – very risky.¹¹⁶ It is proposed that leaders should take account of human and cultural factors in mergers and acquisitions.¹¹⁷ Due diligence reviews are an integral part of all types of mergers and acquisitions. They provide a

¹⁰⁵ Galpin/Herndon (2014)

¹⁰⁶ Vicari (1994)

¹⁰⁷ Haspeslagh/Jemison (1991)

¹⁰⁸ Haspeslagh/Jemison (1991)

¹⁰⁹ Homburg/Bucerius (2006)

¹¹⁰ Cartwright (2006)

¹¹¹ Capassio/Meglio (2005)

¹¹² Palich/Cardinal/Miller (2000)

¹¹³ Kim/Finkelstein (2009)

¹¹⁴ Bijlsma-Frankema (2004)

¹¹⁵ Stahl/Voigt (2008)

¹¹⁶ Buono/Bowditch (2003)

¹¹⁷ Kavanagh/Ashkanasy (2006)

vital tool to help organizations assess the potential liabilities in M&A transactions. One of the main objectives of due diligence is to understand financial viability of the organization or entity involved in M&A – and its compliance applicable laws, regulations and disclosure obligations.¹¹⁸ Determining the potential for a prospective merger or acquisition to create shareholder value and then keeping the promises made to the shareholders is in today's uncertain climate more critical than ever. Any acquisition or merger must start with a clear statement on how that particular action is going to generate new value for the acquirer, or in other words with a plan for creating value. Such a plan is going to include the strategic purpose, the main risks and the value drivers. Prospective acquirers, being aware of the risks they take when they decide to take part in a merger or acquisition, try to reduce the risks by conducting a thorough examination of the business prior to closing the transaction. This process is well known as a reacquisition due diligence review. The due diligence reduces the risks took as it gives the decision makers a better understanding of the targeted entity as well as of the effects of such a merger or acquisition.¹¹⁹ The methodical planning and execution of a due diligence process can help identify, manage and mitigate risks associated with any merger or acquisition, dramatically increasing its chances of overall success. In due diligence, as in any other strategic business process, the board of directors can delegate the work but not the responsibility. Regardless of the way the board uses the company's resources, it must own the due diligence process, be able to defend the outcome and develop an effective plan for moving forward. The last step of an effective due diligence plan is post-merger integration, which is a road map designed to guide all parties to a more complete understanding and appreciation of the cultural, strategic, operational and financial aspects of merging two institutions. Post-merger integration strategies should be formulated throughout the due diligence process and often work best by having key members steering the post-merger integration process involved from the onset of due diligence.¹²⁰ Due diligence with respect to organization can gain strategic advantage if involves HR in the mergers and acquisitions on the deal table. By doing this many of the seen and unforeseen troubles can be averted. In the pre-merger and acquisition stage Human Resources has to analyze strategic expectations of employees and must alert the due diligence team to the ways people and related organizational and cultural issues can affect the deal's key strategic assumptions.¹²¹ Acquisitions produce complex organizational challenges. For this

¹¹⁸ Kusserow (2013)

¹¹⁹ Nachescu (2010)

¹²⁰ Childs (2007)

¹²¹ Jain (2014)

reason individual and organizational experience are essential to avoid integration difficulties. For example, on the individual level, the absence of acquisition experience could make a CEO particularly vulnerable regarding the escalation of commitment that could lead to the completion of deals at unreasonably high costs.¹²² According to Hayward, acquisition experience is a principal mechanism through which companies obtain the necessary skills. M&A's generate complex organizational challenges, and individual as well as organizational experience may be necessary to avoid integration problems.¹²³

3.3 Methodology

The research paper follows a corroborative research method and combines two research approaches comprising case study research and a questionnaire method.¹²⁴ The research process consists of two distinct steps. First, five European and two Chinese case studies are conducted to collect relevant qualitative information based on accessible external information and personal interviews with selected and the at same time experienced experts with the required industrial and/or functional knowledge in the context of mergers and acquisitions in the transportation and logistics sectors. The case study research approach pursues different objectives with regard to contributing to theory. On the one hand, case study research provides a clear strength in creating theory by expanding constructs and relationships within explicit settings. On the other hand, case study research is an instrument of advancing theories by comparing similarities and differences among cases. The following research paper covers both strengths by applying comprehensive single case study investigations as well as a multiple case study approach. Therefore, this research paper analyses selected historical M&A transactions in the transportation and logistics industries in Europe and China followed by a cross case study analysis approach. Such comparisons have not been conducted previously for transportation and logistics specific M&A transactions. For that reason, this paper aims to compare the selected M&A transactions regarding their contributions to theory. One of the primary aims is to delve into a deeper level of analysis by applying thoroughly prepared case studies and focusing on their respective fit on this theory continuum. This method offers a more fine-grained understanding that sheds light on the key qualitative factors impacting the success of mergers and acquisitions in the transportation and logistics industry. Such a depth of analysis

¹²² Haspeslagh/Jemison (1993)

¹²³ Hayward (2002)

¹²⁴ Yin (2014)

enables more rigor in theory contribution. As a result, the contribution to the literature are insights about the factors influencing the success/failure of mergers and acquisitions in the transportation and logistics industry as well as the characteristics of its tailored M&A process chain compared to generally known M&A process chains.

In this research paper the case study design consists of multiple exploratory, embedded case studies based on mostly qualitative data from an analysis of publicly accessible sources and personal interviews with relevant experts. The following paragraphs provide a more detailed overview of the research design with respect to purpose, number, scope, data type and method of data collection.

Case study research can follow different purposes. EISENHARDT differentiates description, theory testing and theory generation.¹²⁵ This distinction is basically in line with the distinction by KEATING, who subdivides theory discovery, theory refinement and theory refutation.¹²⁶ Exploratory case study research is well suited to discover new areas of research if no or only limited theoretical background is available, or the existing theory seems inadequate.¹²⁷ In the context of confirmatory research, case studies can have a dual role. Whereas on a stand-alone basis they can be used to test hypotheses, in connection with other research strategies (e.g. questionnaire) case studies can help to refine hypotheses.¹²⁸

In this research document, the purpose of the case studies is to refine the reasons leading to a success or failure of a transportation and logistics related M&A transaction. The underlying rationale is that factors leading to success or failure of mergers and acquisitions in the transportation and logistics space are currently and relatively undiscovered in academic research. In total, the case study research approach has been applied to five selected historical M&A transactions in Europe and to two transactions in China to ensure a high degree of insights. One of the selection criteria for the cases were the size of the respective M&A transaction, its relevance in the industry and the availability of publicly accessible information.

A single-case design is most appropriate if the specific case is the critical case, an extreme case or a unique case or a revelatory case. On the other hand, a multiple-case design reduces the risk of misinterpretation but on the other hand it is more time-consuming. Further, each case must be selected thoroughly following a replication, not sampling logic. In this research project,

¹²⁵ Eisenhardt (1989)

¹²⁶ Keating (1995)

¹²⁷ Eisenhardt (1989)

¹²⁸ Boos (2012)

five case studies have been conducted. Facts such as industry representation, critical company and transaction size as well as the access to secondary sources and potential interview partners were the main drivers for the selection of the specific case studies.

A holistic case study regards the case as one unit of analysis, whereas the embedded design involves subunits of analysis for the same case. The holistic case study potentially runs the risk that, during the case study, the high-level scope either completely ignores important details or requires a shift in the entire nature of the case study. An embedded design might lag the overall picture.¹²⁹ Given the relatively broad research objective of this research paper, which includes the investigation of key characteristics, value creation and value destruction as well as success factors of transportation and logistics related mergers and acquisitions, embedded case studies are most appropriate.¹³⁰

In this research document, the collected data is mostly of qualitative nature. Case study research can be conducted by using either qualitative or quantitative data from different data origins. The case study interviews are intended to discover more details openly regarding the factors driving success and/or failure of mergers and acquisitions in the transportation and logistics space than to ask for quantitative information. Further, relevant quantitative data is limited from external data sources.¹³¹

To collect the relevant data, several different methods of data collection (e.g. a questionnaire, an interview or an observation) can be applied.¹³² In this research paper, two methods of data are used. First, accessible information from external publications is collected. The information primarily stems from corporate websites, investor relations documents, analyst reports and press articles. Secondly, 15 personal interviews (3 interviews per case) in total have been conducted to get as much as possible insights about the respective M&A transactions in Europe. The interview partners have been carefully selected by considering their M&A expertise and their level of involvement in the transaction. Another factor was their required industrial and functional knowledge and expertise on mergers and acquisitions in the transportation and logistics sectors. The same applies for the selected M&A transactions in China. Here, 12 personal interviews in total have been conducted with selected experts to get as much as possible insights about the respective M&A transactions. The interviews followed a structured

¹²⁹ Yin (2014)

¹³⁰ Eisenhardt (1989)

¹³¹ Yin (2014)

¹³² Eisenhardt (1989)

interview guide which consists of three main parts: pre-M&A stage, M&A stage (transaction phase) and post M&A stage (see figure 1). A structured interview guide offers the opportunity to frame the interview. This approach does not only ensure that the same issues are addressed in all interviews but also that the answers from the interviewees are comparable. At the same time, a structured interview guide allows a lot of flexibility for the course of the interview and also grants the interviewee sufficient freedom to share his point of view. Hence, interviews along a semi-structured interview guide represent a good trade-off between the strengths and weaknesses of open interviews and standardized interviews as the two extremes. The arrangement of the personal interviews with the selected experts was partially quite challenging. The main reasons were that a few experts were either involved in the specific transaction that time or they are still employed at the specific company. In this context the promise of anonymity and the extensive effort in relationship building helped to overcome these constraints. Based on interview notes, case study reports were created which were reviewed by the interviewees. For each of the remaining steps of the case study process (i.e. preparing for data collection and composing the case study report), certain prerequisites must be considered to improve the quality of the case study results. The design of the most important prerequisites in this research document is outlined in the following paragraphs.

For a thorough preparation for data collection, a pilot case study has been conducted. The underlying rationale was to practice the skills necessary for case study interviews (e.g. asking questions, listening) and to adjust the interview guide, if necessary. Descriptive case study reports summarize the research results for each case study. Afterwards, a cross-case study analysis draws conclusions on common patterns between the different case studies. Both the individual case study reports and the cross-case study analysis follow the same structure.

3.4 Characteristics of Chinese M&A transactions

3.4.1 M&A intentions, approaches, success factors and limitations in China

Foreign companies have adopted various approaches in entering China. FedEx, for example, used an aggressive M&A strategy to build its international and domestic air-express business. In November 1999, FedEx and DTW formed a joint venture that mainly operated international express service. In January 2006, FedEx paid \$400 million to buy out DTW's half of the joint venture and acquired all DTW's domestic express business through this acquisition. FedEx

assumed control of management, local distribution and 89 locations, and converted its Chinese operations into a wholly owned foreign enterprise. Thus, FedEx could improve its Chinese operations significantly, expand into second-tier cities and develop its brand name. Although M&A is often the way to build a presence in China quickly, the process is fraught with risks and challenges. The following are four ways before and after a deal closes to increase the chance of M&A success in China.

Watch for hidden cost – A foreign company acquiring a domestic target often realizes costs increase expressively post-acquisition, occasionally as much as 30 percent. This is because foreign companies typically have stronger compliance and responsibility policies than domestic companies, which focus on expediency. Because there is reluctance to explore gray areas in tax, labor, health and safety due to fear of corporate liability, compliance costs tend to arise after the deal is closed. China's new labor law is another challenge for foreign companies struggling to control incremental costs. The law enforces strict compliance with labor-related issues, emphasizes formal contracts, and mandates a minimum wage and social benefits. During the pre-close phase, it is wise to conduct due diligence to understand the hidden costs that may arise post-acquisition and build this knowledge into the business case. Once the deal has been completed, it is important to manage incremental costs by understanding local regulations and practices.

Understand the web of relationships – Many of the private domestic logistics companies are still owned and operated by their founders. As their companies grew quickly over the years, these leaders developed an extensive network of relationships among suppliers, employees and family members, often with little regard for operational efficiency. For example, it is not uncommon for employees to own the line-haul trucks used by freight companies. This is sometimes encouraged by owners as a fringe benefit that allows salaries to stay relatively low. A common result, though, is that employees will delay the loading of certain line-haul trucks and wait for their own trucks to arrive, to maximize personal profit. Of course, this is a cause of poor performance and unreliability. New entrants must navigate these webs of relationships carefully, since they form the basis of employees' steady incomes. Before closing a deal, companies should seek to discover hidden incentives within the company's relationships. After a deal, change that is too sudden or abrasive could lead to wide-spread dissatisfaction – and perhaps even sabotage.

Address the talent challenge – There is often a lack of operational talent in China, particularly in transportation-network management. Important decisions are often based on instinct rather

than information and analysis, leading to hit-or-miss results. While acquiring companies send finance or human resources teams to the target company, they rarely do so for operations, under the assumption that the new acquisition already has enough capability to be successful. Yet, operations are often the toughest nut to crack. Acquired companies, proud of their operations and past success, can become defensive and resistant to change. Rigorous due diligence is essential for assessing the target company's true operational and human capabilities before a deal and ensuring that the acquiring company really gets what it pays for. To improve operational performance after a deal, the acquiring company might consider providing full-time, on-site operations leadership or support with a focus on winning the trust of the local operations team.

Manage local expectations – Many employees in domestic companies think that working for foreign companies means better salaries and an easier workload. Sometimes, the owner of the target company may promise employees huge salary increases or improved benefits to generate approval for a sale. When such promises go unfulfilled, the resulting distrust and low morale will hurt production. An effective employee communication program implemented early in the process can mitigate false and unrealistic expectations. It is important to communicate with local workers during the acquisition process rather than leaving it to the target company's management. Since China's domestic logistics companies are usually decentralized and have strong local power bases, there will be resistance to top-down changes that jeopardize by revamping the incentives system building up trust and credibility and engaging in honest communication. A strong leader with first-rate people skills can help bridge cultural differences and close the talent gap.¹³³

3.4.2 Chinese transportation and logistics market: structure, trends and challenges

At the present point in time, market access to various transportation segments in China has been granted post-WTO, but market concentration level remains low. The following chart gives an overview regarding the market access, market concentration and asset intensity of the three transportation and logistics segments 1st, 2nd and 3rd party logistics.

¹³³ A.T. Kearney (2009)

		Industry description	Business model example
3PL	Logistics consulting	<ul style="list-style-type: none"> Provides supply chain optimization solutions to shippers to help them manage 3PL providers 	<ul style="list-style-type: none"> Constructs enterprise logistics IT systems to provide manufacturers with SCM optimization solutions
	Contract logistics	<ul style="list-style-type: none"> 3PL refers to contract logistics in its narrow sense 	<ul style="list-style-type: none"> Automotive logistics, cold chain, chemical logistics, etc.
	Freight forwarding	<ul style="list-style-type: none"> Provides international air/ocean freight forwarding services for importers/exporters, incl. customs clearance, inland transport and LCL etc. 	<ul style="list-style-type: none"> Ocean/air freight forwarding, intermodal forwarding
2PL	Express	<ul style="list-style-type: none"> Time-bound delivery services, typically for smaller cargoes, i.e. <30 kg 	<ul style="list-style-type: none"> Intermodal and domestic express services
	Air cargo	<ul style="list-style-type: none"> Airline companies provide point-to-point air cargo shipping services on both international and domestic routes 	<ul style="list-style-type: none"> All-cargo aircraft, passenger aircraft carrying cargo in the bellies
	Rail	<ul style="list-style-type: none"> Provides rail cargo transport services, mainly for SOEs 	<ul style="list-style-type: none"> Container block trains, coal charter trains, mixed trains
	Road	<ul style="list-style-type: none"> Provides road transport services for shippers 	<ul style="list-style-type: none"> FTL and LTL services
	Ocean shipping	<ul style="list-style-type: none"> Includes deep sea, coastal, and river transportation with cargo types covering containers, dry bulk, and oil products, etc. 	<ul style="list-style-type: none"> Container liners, dry bulk shippers, ship owners, ship brokers, ship management companies, etc.
	Warehousing	<ul style="list-style-type: none"> Uses own warehousing facilities to provide clients with storage and custody services 	<ul style="list-style-type: none"> General warehouse storage, sorting, cold storage, etc.
1PL	Inhouse logistics	<ul style="list-style-type: none"> Manufacturers or retailers operate logistics in-house 	<ul style="list-style-type: none"> Operates own truck transport and distribution fleets with own warehouses and inventory management

Figure 5: Segmentation of the transportation and logistics industry

Transportation and logistics is typically a low margin industry in China, with contract logistics and express service as most attractive segments given their market growth and profitability.

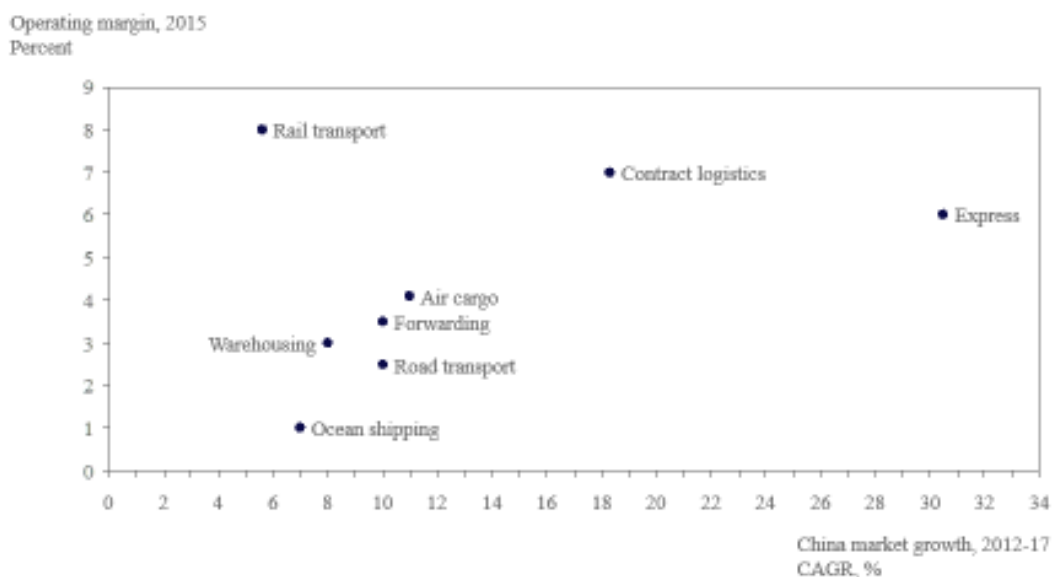


Figure 6: Profitability and market growth of different transportation and logistics segments

China's current prime minister has recently announced that the logistics industry should be handled more efficiently.¹³⁴ Especially the e-commerce sector has grown rapidly over the last five years making China the largest e-commerce country worldwide.¹³⁵ The increasing growth of e-commerce presents new challenges for logistics providers since 70-80% of e-commerce volumes are linked with a physical delivery. For that reason, a more efficient logistics is unavoidable to manage the strong e-commerce growth. Except for courier and express services, the logistics sector is quite fragmented. There is currently no provider that can take a dominating role in the market. However, this looks a bit different for the domestic courier services market which is rather an oligopoly¹³⁶. Here, there are currently 7-8 dominating providers with a combined market share of 70%.¹³⁷ Compared to the domestic courier services market, the 10 largest road transportation providers reach a market share of 1-2% in total. Today, there are presently 15,000,000 trucks in the trucking sector which are operated by 700,000 – 800,000 trucking companies. The average size of a trucking company is extremely small. For very small companies, it is quite difficult to coordinate supply and demand. Nowadays, 40% of all trucks on Chinese motorways are empty because of imbalance. In the trucking industry, China needs considerably larger providers to be more efficient and to protect the environment. Nevertheless, it is very difficult to integrate the trucking industry as compliance costs are too high and most trucking companies are family-owned. Customers and network are at the forefront of logistics acquisitions. Many companies in this sector focus on warehouses and distribution centers. At this stage, it is very expensive to buy land in China. For that reason, a host of companies acquire other providers to get cheap access to warehouses.¹³⁸ In the Chinese airline sector, those days for acquisitions are gone. The four leading airline groups Air China, China Southern, China Eastern and Hainan Airlines already control most the Chinese airline market. Especially in the air cargo segment, airlines are continuously focusing on the commercialization of aircraft belly capacities since operations of pure freighter fleets don't pay off on a long-term basis. Compared with courier services, air freight transportation in China is not economical as rates are significantly higher.¹³⁹ China Railway is primarily focusing on coal, agriculture products, chemicals and fertilizers, whereas general cargo represents only 1% of total transportation volumes. In China, there are currently 100 state-owned companies which get a special attention

¹³⁴ Interview L, 25.07.16

¹³⁵ Interview M, 27.07.16

¹³⁶ Interview L, 25.07.16

¹³⁷ Interview N, 28.07.16

¹³⁸ Interview L, 25.07.16

¹³⁹ Interview O, 15.08.16

by the Chinese government. The Chinese government has targeted to have 2 gigantic companies in each key industry comprising electricity, telecommunications, heavy engineering and transportation. With several hundred thousand of freight forwarders, the freight forwarding sector in China is quite fragmented. This partially also applies to the contract logistics sector where providers such as DHL, Kuehne+Nagel, etc. have a poor market share since the bulk of the business is generated via the logistics departments of Chinese partners.¹⁴⁰ Because of the large number of freight forwarders and trucks, freight forwarders usually cannot charge high prices. 'Price' is often the only distinguishing feature in the tough competition.¹⁴¹ Private, Chinese courier service providers back on the minimum required automatization of distribution centers since the level of labor costs still allows this. While further M&A transactions in the airline and shipping industries are very unlikely in the next five years, the trucking industry is expected to remain very fragmented. However, there will be changes in the courier services segment. Today, there are 7-8 large providers, which have not reached the desired profitability. Four of these providers are trying to become public companies to get a better capital access. Nevertheless, the probability for acquisitions is limited as most providers already have their own networks and the desired synergy potential is restricted.¹⁴²

3.5 Case studies of M&A transactions in the T&L industry in Europe

In the following, the research results from the European case studies are summarized in separate case study reports. Each case study report follows the same structure. First, it focuses on the pre-merger and acquisition stage. Second, it highlights the main questions during the transaction phase of a merger and acquisition transaction. Third, it investigates the key elements in the post-merger and acquisition stage. Afterwards, a cross-case study has been created to extract the key findings from the case studies.

¹⁴⁰ Interview L, 25.07.16

¹⁴¹ Interview M, 27.07.16

¹⁴² Interview L, 25.07.16

3.5.1 Case study Deutsche Bahn - Arriva

Company and transaction background

Based in Germany, Deutsche Bahn is a government-owned global transport and logistics provider. It divides its operations into nine business units that are organized into three divisions of Transport and Logistics, Passenger Transport and Infrastructure. Today, the Passenger Transport division is responsible for local and regional rail transport in Germany, long distance and cross border rail transport in Germany and regional transport based in other European countries (rail, bus and ferry). All passenger transport activities outside of Germany are currently covered by Deutsche Bahn's subsidiary Arriva.¹⁴³

Arriva is one of the largest providers of passenger transport in Europe operating in 14 European countries. It operates a wide range of services including local buses, inter-urban commuter coaches, local, regional and national train services, trams and light rails, waterbuses, demand response, non-emergency patient transport and airport related transport.¹⁴⁴

In 2010, one of the most strategic acquisitions in the European transport market was completed, when Deutsche Bahn acquired the UK-based rail and bus operator Arriva. The acquisition has resulted in the creation of the largest rail and bus company in Europe. On April 22, 2010, Deutsche Bahn's final offer of GBP 1.6 billion was accepted by Arriva over a competing proposal made by the France-based SNCF for an all-share merger of Arriva with Keolis. Arriva accepted Deutsche Bahn's bid as it provides the company cash rather than the minority stake it would have received in the company after the proposed merger with Keolis.¹⁴⁵

Pre-M&A phase

The liberalization of the European regional passenger transport market was on the one hand an imminent risk for the home market from the perspective of Deutsche Bahn on the other hand the liberalization opened new opportunities in other European markets. The acquisition of Arriva by Deutsche Bahn was a capital market driven deal. Since 2002, Arriva stood on the acquisition list of Deutsche Bahn. In 2009, Deutsche Bahn finally acquired Arriva at a particular

¹⁴³ GSCI Transport Intelligence (2015)

¹⁴⁴ Deutsche Bahn (2015)

¹⁴⁵ Global Mass Transit (2010)

time where prices were at rock bottom. The profitable regional passenger services business unit of Deutsche Bahn and the fact that Arriva was a listed company were strong drivers for the acquisition of Arriva through Deutsche Bahn.¹⁴⁶ At that time, Arriva was a suitable M&A candidate and the only way for Deutsche Bahn to grow outside of Germany in the regional passenger transport market since an organic growth was not realistic. The German passenger transport market was saturated and the only option for growth was therefore abroad. The strategic fit of Arriva promoted the acquisition from the perspective of Deutsche Bahn as well. Another strategic objective of the acquisition was the implementation of synergies between different local markets. The synergy potential in the domestic (German) market was extremely limited at that time, whereas international markets offered better opportunities for operational synergies such as the optimization of transport chains and end-to-end delivery. Arriva's broad presence in Europe was one of the key decision factors from the perspective of Deutsche Bahn. Its presence in large passenger transportation markets such as the United Kingdom was beneficial promising above-average growth prospects in Europe. The finance department of Deutsche Bahn was timely commissioned to shape and define the necessary structures for the integration of Arriva into the group.¹⁴⁷

M&A stage (transaction phase)

During the acquisition of Arriva especially commercial (growth prospects) and financial (transaction price) factors played a significant role in the progressed due diligence. Human Resources related questions and challenges were firstly faded into the background since the overall circumstances and the proactive willingness of Arriva's management for the transaction allowed approach. Synergies were especially seen in the intensification of service level agreements across all regions and through the integration and harmonization of several IT systems.¹⁴⁸ The transaction value was positively driven by Deutsche Bahn's vision to become the largest rail and bus company in Europe.¹⁴⁹

¹⁴⁶ Interview A, 22.07.15

¹⁴⁷ Interview B, 26.06.15

¹⁴⁸ Interview B, 26.06.15

¹⁴⁹ GSCI Transport Intelligence (2015)

Post M&A stage

Integration processes within companies basically have to be set up as a project with clear communicated responsibilities and it has to be clear who monitors the integration phase. In this context, the project team ideally consists of employees from the parent and acquired company.¹⁵⁰ In this case, the finance department of Deutsche Bahn was commissioned to monitor the progress in the integration phase in close collaboration with the CEO of Deutsche Bahn.¹⁵¹ Besides that an integration philosophy is generally necessary to ensure a successful and speedy integration of phase.¹⁵² In case of the Arriva transaction, Deutsche Bahn first established so called shared service centers where amongst others finance and accounting departments were brought together acting as a single cost center. The main intention at this point was to reduce costs and to increase efficiency in these functional areas. Furthermore, a new corporate governance structure and respective guidelines were defined and implemented to provide a transparent corporate culture. Deutsche Bahn intensified service level agreements with focus on procurement and introduced first IT integration to integrate both companies after the transaction stage. Especially the harmonization of IT tools can be very beneficial in a quite resources-heavy industry like the transportation sector. It helps to reduce costs in areas such as procurement and Human Resources and increases process efficiency along different dimensions (e.g. route planning and supply planning).¹⁵³

3.5.2 Case study Kuehne+Nagel – ACR Logistics acquisition

Company and transaction background

Kuehne+Nagel is a freight forwarding and logistics group headquartered in Switzerland with operations located throughout the world. Its main business is in the sea freight, air freight and contract logistics sector, with a focus on providing IT-based supply chain management services. It also offers rail and overland transportation, as well as warehousing and distribution. When segmented by business activity, Kuehne+Nagel's largest division is sea freight (44.7% of revenues in 2014) followed by contract logistics (21.5%), air freight (20.4%) and overland (13.4%).

¹⁵⁰ Interview A, 22.07.15

¹⁵¹ Interview B, 26.06.15

¹⁵² Interview A, 22.07.15

¹⁵³ Interview B, 26.06.15

ACR Logistics was formerly known as Hays Logistics and part of Hays Plc, a UK-based provider of business support services. Following a strategic review undertaken between November 2002 and February 2003, Hays Plc took a decision to focus exclusively on the development of strong specialist recruitment and HR service business. The company disposed of its commercial and logistics divisions in 2003 and floated the mail division in 2004. Hays Logistics was sold to the US group Platinum Equity in November 2003. In October 2004 it was re-branded as ACR Logistics.¹⁵⁴

Pre-M&A stage

The strategic positioning of a new management in the nineties laid the foundation of the acquisition of ACR Logistics. At that time, Kuehne+Nagel was a very profitable and simultaneously global forwarder with additional warehousing spaces. During several strategy discussions of management focusing amongst others on trends, budget and medium-term planning, Kuehne+Nagel made the decision to establish a competitive contract logistics business in North America and Asia. In 2001, Kuehne+Nagel acquired firstly USCO Logistics – a warehouse-based contract logistics provider in the US and became one of the top 5 contract logistics providers in the NAFTA region. Furthermore, Kuehne+Nagel entered into a commercial agreement with SembCorp Logistics to create a large contract logistics network in Asia through a partnership. Both companies however decided to terminate their commercial agreement later on as both groups recognized that substantial differences regarding respective business approaches, industry focuses and scope of services had constrained successful cross-selling activities and joint market penetration. After the expansion plans in North America and Asia, the management of Kuehne+Nagel realized that the presence in its core market Europe is under-represented and looked at potential takeover candidates such as Wincanton and Hays Logistics as a result.¹⁵⁵

Essential factors during the screening of ACR Logistics from Kuehne+Nagel perspective were a fair transaction price, the degree of supplement of the contract logistics business in European markets and a perfect entrepreneurial fit. Especially keeping the existing management and customers of ACR Logistics helped to lay the foundation of a successful M&A transaction which was expressed by a stable EBITDA development in the first years after the acquisition.

¹⁵⁴ GSCI Transport Intelligence (2015)

¹⁵⁵ Interview C, 10.02.16

In addition to that, a top down identification of all stakeholders as well as a good fit of the vertical focus and company strategy redounded to the benefit of the M&A process.¹⁵⁶ Kuehne+Nagel took care that only a small, ad-hoc constituted group from different regions and functions required by law was involved into the deeper processes of the pre M&A stage.¹⁵⁷

M&A stage (transaction phase)

In the case of the ACR Logistics acquisition, financial (e.g. focus on balance sheet) and commercial (e.g. complementary assessment) factors had a slight higher weighting while legal and environmental factors were less relevant due to Kuehne+Nagel's asset light business model. Human Resources was important as well, especially through the early and close involvement into the acquisition process.¹⁵⁸ For the financial and commercial parts of the due diligence process, Kuehne+Nagel preferred internal resources so that their own employees can identify and assess the potential effects of the acquisition for their current business.¹⁵⁹

Revenue synergies were to the fore due to the high complementary degree. Cost synergies were not the main motivation for the acquisition, although specific synergies were realized in administrative areas such as accounting. A high persuasion for a stable revenue development (earning power today vs. earning power tomorrow) as well as a broad contract portfolio as a valuable asset were key drivers for the transaction value.

Post M&A stage

Kuehne+Nagel did not set up a separate integration project after the acquisition of ACR Logistics. In contrast, Kuehne+Nagel retained its lean company structure and integrated all ACR Logistics managers into line functions of Kuehne+Nagel. Functional areas including finance (e.g. new reporting requirements), Human Resources (e.g. standardization of contracts) and sales (e.g. up-selling vs. cross-selling measures) played a more important role in the beginning of the post M&A stage. The integration of both companies were respectively influenced by the decision to keep the current Chief Executive Office of ACR Logistics because

¹⁵⁶ Interview D, 25.09.15

¹⁵⁷ Interview C, 10.02.16

¹⁵⁸ Interview D, 25.09.16

¹⁵⁹ Interview C, 10.02.16

of his persuasive power towards the employees and his own persuasion of the acquisition. It was very important to explain and convince shareholders and managers on internal and external road shows why all stayed on-board! The room for entrepreneurship within Kuehne+Nagel, one of the characteristics of the company, supported the realization of synergies as long as the results were consistent with company targets.¹⁶⁰

3.5.3 Case study Deutsche Post – Exel acquisition

Company and transaction background

Based in Germany, Deutsche Post DHL is the world's largest provider operating in over 220 countries. Deutsche Post and DHL brands cover a wide range of services for managing and transporting mail, goods and information. Deutsche Post entered the air express market by taking a strategic stake in DHL in the late 1990s, obtaining control of the company by 2002. In addition, the company acquired companies such as Danzas, AEI, Airborne, ASG, Nedlloyd and Exel, before integrating them under the DHL brand. It adopted a strategy of a worldwide acquisitive growth with the clearly expressed aim of being the world's leading mail, express and logistics provider. Until its acquisition by Deutsche Post World Net in December 2005, Exel was a UK listed full service logistics provider with worldwide operations, headquartered in the UK. It was formed from the merger of Ocean Group Plc in 2000 and broadly combined the freight forwarding operations of the former with the contract logistics activities of the latter. At the time of acquisition Exel was the world leader in contract logistics.¹⁶¹ The European Commission cleared under the EU merger regulation the acquisition of Exel by Deutsche Post. The Commission considered that although Deutsche Post will increase its presence on the markets where Exel is active, other companies will be able to compete with Deutsche Post effectively.¹⁶²

¹⁶⁰ Interview D, 25.09.15

¹⁶¹ GSCI Transport Intelligence (2015)

¹⁶² European Commission (2005)

Pre-M&A stage

One of the key motivations of DHL in acquiring Exel was the fact to get access to growing markets such as United Kingdom and United States.¹⁶³ At that time DHL was very broad positioned in Europe and Asia whereas Exel had a large footprint in North America including big logistics markets such as the United States. Especially, Exel's extensive warehousing network in the United States was quite attractive for DHL.¹⁶⁴ Furthermore, Deutsche Post wanted to add package-handling and supply chain management services in the United States, Europe and Asia to its product portfolio to prepare for the loss of Deutsche Post's monopoly on German mail delivery in 2008.¹⁶⁵ Deutsche Post World Net, former name of Deutsche Post DHL, did not have a specific business unit that time providing amongst others break bulk cargo and heavy haulage services. In Exel, Deutsche Post World Net saw a good supplement for its product portfolio which had a very positive reputation in the international logistics market. Exel's geographic presence was important as well providing DHL access to rather underserved markets with huge growth potential. At that time, DHL was also more perceived as a mail provider rather than being considered as a "real" logistics company which you can entrust with complex logistics solutions. DHL was not dispose of the necessary infrastructure and customer base as well. However, DHL's strong brand helped the company to build a relationship with existing and new customers.¹⁶⁶ In case of the DHL – Exel acquisition the early involvement of Exel's management was a key success factor for the successful integration afterwards. Exel's then Chief Executive Officer run the combined division after the transaction. Exel was mainly characterized through a project culture dominated with engineers who had the necessary know-how in the contract logistics space.¹⁶⁷ The involvement of employees into pre-discussions was basically very important since this otherwise could have led to unrest amongst the employees with a counterproductive effect on the further merger and acquisition process. Consequences e.g. usually can be seen in efficiency decline.¹⁶⁸

¹⁶³ Interview E, 27.07.15

¹⁶⁴ Interview F, 04.02.16

¹⁶⁵ GSCI Transport Intelligence (2015)

¹⁶⁶ Interview E, 27.07.15

¹⁶⁷ Interview A, 22.07.15

¹⁶⁸ Interview E, 27.07.15

M&A stage (transaction phase)

Today, compliance aspects have a significant impact on due diligence processes. There is no dominating due diligence area since a due diligence depends on the specific transaction as in case of the acquisition of Exel by DHL. Financial due diligence however usually still plays the most important role in a company due diligence followed by commercial due diligence where especially contract risks are examined carefully. So called finance controlling departments of companies typically carry responsibility to identify and quantify the potential of synergies. They usually create process models which break down the different cost buckets for the core business processes.¹⁶⁹ It is easier to identify and quantify synergy potentials in organization related areas, e.g. the merging of the marketing departments as a result of the respective acquisition. The identification and quantification of synergies becomes more difficult, if both companies are acting in different markets with specific market characteristics.¹⁷⁰ This turned out as a tedious factor in the acquisition of Exel since both companies had a different geographic focus. It took up a few years after the acquisition until first synergies were noticeable. Deutsche Post initially intended to realize gross cost synergies of EUR 220 million p.a. by 2008. These synergies mainly related to overhead cost (~50% of total cost synergies) and productivity enhancements (~30% of total cost synergies). Over a period of 3 years total integration cost of EUR ~400 million were planned, with almost half of the cost expected in year 1, ie. 2006.¹⁷¹ On the other side, Deutsche Post's transparent vision was a key driver for transaction value. Companies basically have to have ideas which generate added value (e.g. expected profit). The fact that DHL became the largest contract logistics provider globally drove the transaction value as well since it led to a competitive advantage. DHL's promise of quality was another significant driver for transaction value encouraging existing and potential customers to entrust DHL with the handling of the (whole) supply chain.¹⁷²

Post M&A stage

IT integration efforts played a significant role in the integration phase (e.g. harmonization of material numbers) which are usually very complex. A rapid integration is a big money saver factor as well as eliminating unnecessary interfaces in the value chain from experience. The

¹⁶⁹ Interview A, 22.07.15

¹⁷⁰ Interview E, 27.07.15

¹⁷¹ Deutsche Post DHL (access on 20.07.15)

¹⁷² Interview E, 27.07.15

management of DHL paid timely attention to IT integration issues to enable quite qualitative products to its customers. In this context, DHL established smaller working groups (e.g. on IT and operations topics) with the aim to define and implement measures to allow a faster and more successful integration of both companies.¹⁷³ After the transaction, DHL first operated with two logistics sub-brands: DHL Exel Supply Chain and DHL Global Forwarding. Rebranding was completed by the end of 2006.¹⁷⁴

3.5.4 Case study Asendia

Asendia is one of the leading international mail, shipping and distribution organizations, delivering packages, parcels and document to more than 200 destinations across the globe. In 2012, Swiss Post and the French La Poste launched Asendia, combining their international mail activities. Within a relatively short time period, Asendia has combined the expertise and networks of the existing international mail activities of Swiss Post (Swiss Post International) and La Poste (La Poste Global Mail). Despite a decline of international mail volumes by a few percentage points each year over the past decade, Asendia's positive vision was built on the fact since 2011, unlike in domestic mail markets, there is a belief that cross border mail volume decline has slowed or even halted. At the time of the international mail business merger some segments of the cross border market were still experiencing decreasing volumes, notably transactional mail, but this was very much being compensated for by growth in areas such as direct mail, catalogues and small goods. One of the key motivation factors for the merger was the fact that the networks of La Poste Global Mail and Swiss Post International are complementary in many respects. In this context, La Poste had a very strong position in the US market and UK market, while Swiss Post had a strong position in Germany, in many other European countries and in Asia. A consequent strategy has helped Asendia to establish a successful business retrospectively. In advance identified overlaps between the two companies were eliminated. The improved economies of scale through the merger supported Asendia to realize synergies and improvements in service quality.

¹⁷³ Interview E, 27.07.15

¹⁷⁴ GSCI Transport Intelligence (2015)

3.5.5 Case study SNCF Geodis - Ermewa

In 2010, SNCF Geodis (today SNCF Logistics) wholly acquired Ermewa, a major European player in wagon rental, operation and maintenance for the transport of hazardous liquid, gas and solid products. At the time of the completion of the acquisition, Ermewa owned a fleet of 60,000 wagons, 23,000 containers and 16,000 small containers. With the acquisition Ermewa became part of the Asset Management entity of SNCF Geodis.¹⁷⁵ With Ermewa, SNCF Geodis enhanced its portfolio and gained a foothold in the gas and chemical container hire business.¹⁷⁶

“It is taking control of a profitable company that has proven the robustness of its business model over the past years. This acquisition will also help to accelerate the development at European level of the Asset Management unit.” (Pierre Blayau, CEO SNCF Geodis)

Having kept the existing management of Ermewa during the acquisition helped SNCF Geodis to integrate the company into the group quickly and to structure this unit. Moreover, the fact that SNCF Geodis was formerly possessing 49.6% of Ermewa had a positive effect on the integration phase.¹⁷⁷ Different factors contributed to Ermewa’s success over time which are still relevant today. Despite the competitive environment, Ermewa has become a global leader in the railcar lease market as a result of the diversity and reach of its fleet in particular. Another key factor contributing to the company’s success is that Ermewa executes these services locally throughout Europe. Besides three main offices in Paris, Berlin and Geneva, the rail leasing operations are also supported by branch offices in the Netherlands, UK and Czech Republic.¹⁷⁸ A close “cooperation” between Ermewa and SNCF Geodis helped both companies to learn from each other on industry specific trends, customer needs and product innovations. The regular exchange amongst both companies led to increasing contract volumes. Ermewa has actually seen consistent year-on-year growth. According to this, Ermewa’s total revenues increased to EUR 489 million in 2014 from EUR 384 million in 2008.¹⁷⁹

¹⁷⁵ GSCI Transport Intelligence (2015)

¹⁷⁶ World Cargo News (2010)

¹⁷⁷ Railway Technology (2010)

¹⁷⁸ Railway Strategies (2013)

¹⁷⁹ Ermewa Group (2015)

3.5.6 Cross-case study analysis of European M&A transactions

The cross-case study analysis intends to identify the similarities as well as differences between the five case studies conducted, with respect to key factors leading to and characterizing the success or failure of mergers and acquisitions in the transportation and logistics sector in the different M&A stages. The following subsections outline the results of the cross-case study analysis.

Pre-M&A stage

The case studies have shown that there are few specific reasons why transportation and logistics companies usually conduct merger and acquisition transactions. One of the key intentions is the extension of the network. Companies need a larger coverage of their product ranges. They have realized from the customer perspective that it can be a disadvantage not to cover specific markets. “The bigger the better” is often the slogan at this point! This is partially linked to increasing customer requirements.¹⁸⁰ Another key reason for M&A transactions is the purchase of time and a customer portfolio which is mostly combined.¹⁸¹ Especially in the last decade, logistics providers have felt the squeeze that customers partly expect the takeover of whole value chains. This can be both geographical and intermodal. Today, customers also premise skills in different disciplines of the logistics (e.g. contract logistics).¹⁸² Furthermore, the decision for mergers and acquisitions usually derives from company strategies. A few years ago, Lufthansa for instance acquired Swiss and Austrian Airlines to enter valuable markets and to follow the European airline consolidation trend in order to remain its competitive position by creating a critical company size in Europe. Potential synergies linked to M&A transactions basically play a major role during the screening process of M&A targets.¹⁸³ Also growth outside of the headquarters due to limited capacity is one of the key strategic reasons for M&A transactions. Therefore, mergers or acquisitions of national or international companies are often the only options to grow. In case of Fraport, one of the largest airport operators’ worldwide, M&A transactions are rather opportunity driven.¹⁸⁴

¹⁸⁰ Interview G, 17.07.15

¹⁸¹ Interview H, 24.07.15

¹⁸² Interview G, 17.07.15

¹⁸³ Interview I, 17.09.15

¹⁸⁴ Interview J, 15.09.15

Companies only enter into a certain kind of strategic partnership, if they don't have another alternative. Either you have to do it (e.g. to enter the market in China) or you use the partnership model for exit preparations.¹⁸⁵ In case of strategic partnerships, interests often can't gain sufficient acceptance.¹⁸⁶ One of the biggest advantages of strategic partnerships however is the simple exit opportunity from partner perspective compared to mergers or acquisitions. Companies usually prefer mergers and acquisitions, if they want to build up core competencies with the target company.¹⁸⁷ This factor was also in the focus of the analyzed case studies.

M&A stage (transaction phase)

Apart from environmental factors which play a rather subordinated role in transportation and logistics M&A transactions, all other factors are usually equally important. There is no partial due diligence, but the aim should be to conduct a holistic due diligence in order to evaluate the target as precisely as possible.¹⁸⁸ The case studies have shown that the weighting of specific due diligence factors basically depends on the respective case since each M&A transaction has its own characteristics.¹⁸⁹ Financial and commercial aspects or the so called analysis of the deal logic however were in all cases a bit higher weighted than other factors.

Based on the conducted case studies there is no specific method to identify and quantify the potential of synergies since each M&A transaction requires an individual analysis.¹⁹⁰ In most cases, companies used a benchmark approach for the identification of synergies linked with the respective M&A transaction. Additionally, so called finance controlling departments of companies carried responsibility to identify and quantify the potential of synergies. Focus areas for synergies were often procurement (realizing economies of scale), reducing labor costs (e.g. closing of departments) or IT-harmonization (e.g. using just one IT system in the company). The value of each M&A transaction was determined by different drivers. According to that, the stand alone planning in combination with the target company (considering synergies) was mentioned as one of the main drivers for transaction value. Besides that cash flow generation was another driver for transaction value. Moreover, fantasies along different dimensions (e.g.

¹⁸⁵ Interview G, 17.07.15

¹⁸⁶ Interview J, 15.09.15

¹⁸⁷ Interview I, 17.09.15

¹⁸⁸ Interview G, 17.07.15

¹⁸⁹ Interview I, 17.09.15

¹⁹⁰ Interview K, 18.08.15

growth realization) can also drive transaction value upwards. These fantasies however have to be translated into cash flow.

Post M&A stage

Companies used different approaches to monitor the progress in the integration phase. Besides the establishment of a permanent M&A integration department, most enterprises established a central Project Management Office (PMO) to introduce and monitor the required measure. The case studies have shown that integration is a real management responsibility. It has been proven that the existence of a developed scheme for the integration of the acquired company is generally very helpful. A further key factor in the integration phase was the allocation of responsibilities to clearly defined and communicated individuals who are ideally familiar with integration topics. Based on the conducted case studies functional areas such as Human Resources, sales, operations and IT played a more important role in the beginning of the post M&A stage. Especially Human Resources played a significant role in the post M&A stage while it was rather in the background during the due diligence. A regular communication amongst all employees usually helped to adjust organization structures which laid the foundation of a successful integration process. Aside from that IT integration was one of the key factors during the integration phase (e.g. harmonization of material numbers) which is usually very complex. A further common factor in the post M&A stage was the harmonization of the company culture which is essentially for realizing all intended targets (e.g. process optimization, synergies, customer perception etc.).

3.6. Case studies of M&A transactions in the T&L industry in China

In the following, the research results from the Chinese case studies are summarized in separate case study reports. Each case study report follows the same structure. First, it focuses on the pre-merger and acquisition stage. Second, it highlights the main questions during the transaction phase of a merger and acquisition transaction. Third, it investigates the key elements in the post-merger and acquisition stage. And finally, a cross-case study has been created to extract the key findings from the case studies.

3.6.1 Case study Kintetsu World Express – APL Logistics

Company and transaction background

Kintetsu World Express (KWE), established in 1970, is a Japanese logistics service provider. Its primary business is freight forwarding, with air freight forwarding its largest activity and ocean freight of secondary importance. It is also engaged in contract logistics activities, although these are of less importance than its forwarding business. Although based in Japan, Kintetsu has a global network that covers the Americas, Europe, Middle East & Africa, East Asia & Oceania and Southeast Asia.

APL Logistics is a Singapore-based global cargo transportation and logistics company. It offers a range of services including supply chain services (order management, freight management, import & export management, warehouse & distribution management and international hub management), supply chain engineering (supply chain network optimization, green supply chain analysis, warehouse design and transportation & distribution design), technology services (supply chain collaboration, warehouse management systems, optimization, visual intelligence and transport management systems) and industry solutions (automotive, retail, consumer, industrial). It operates via a global network of 110 offices, more than 5,600 employees and logistics facilities with more than 20m sq. ft. of warehouse space. Its distribution network offers multi-modal transportation with rail operations in North America and India.¹⁹¹

Pre-M&A phase

Kintetsu World Express (KWE) is a very traditional air freight forwarding company. A passing view of KWE's profit and loss statement shows that most of the profit is generated by air freight forwarding. Thus, air freight forwarding is in the top area of the pyramid. For the time being, KWE is suffering from the slow growing of the air freight forwarding market since large enterprises of the high-tech industry already belong to the customer portfolio of KWE. About 10 years ago, KWE started to discuss internally how to further grow and to be more profitable in the future. In the past, the core strategy of KWE was called 'leverage logistics'. For those air freight forwarding customers, KWE was trying to approach them for new businesses including

¹⁹¹ GSCI Transport Intelligence (2016)

ocean freight forwarding, warehousing, domestic transportation and contract logistics. Although the contract logistics business of KWE's customers was not profitable as air freight forwarding, KWE still aimed to handle more business from their customers by providing a total supply chain and not just air freight forwarding. However, the profit and loss statement showed strange results. Today, KWE has three pillars of revenues comprising air freight forwarding, ocean freight forwarding and contract logistics. The CEO at the time wanted to achieve a more balanced portfolio to minimize potential business risks during low seasons or special market situations. The main intention for the setup and expansion of the ocean freight forwarding and contract logistics businesses was to stabilize the company. From there, KWE started to change its business portfolio. The company set targets for the ocean freight forwarding business such as how much TEU's KWE wants to handle or how much revenue KWE wants to gain from contract logistics. By doing this, KWE started to change and to handle non-air freight related customers to enrich its product and customer portfolio. But after 10 years, KWE has realized that they made a moderate progress in that period. They put a lot of efforts in ocean freight forwarding and contract logistics, but it did not work out since in most customers' eyes KWE was still perceived as an air freight forwarding company. Both KWE and APL Logistics are two companies with an entirely different corporate culture.¹⁹² The main reason for the acquisition of APL Logistics from KWE's standpoint was to solve the strategic problem KWE was facing. KWE put constant efforts with poor results, so that KWE started to seek a proper target on the market and APL Logistics was the grown-up from a liner.¹⁹³ APL Logistics has a strong ocean freight and contract logistics business. Finally, KWE set-up APL Logistics as the target and spent \$1.2 billion to acquire the company. Today, KWE in China generates ~13% of KWE's total revenues, but profit-wise it is much higher since China is a fast-growing emerging market. Relationship was the most relevant factor for the final acquisition of APL Logistics. To outsiders it was quite unusual to understand why KWE did not choose a Japanese company or another Chinese company as the company had other choices, but at the end of the day the transaction was relationship driven. The factor 'relationship' had a higher relevance than aspects such as growth potential, business portfolio, etc. of the target. NOL, the parent company of APL Logistics, at that time offered APL Logistics for sale since the ocean business passed through stormy waters. The transaction price was appropriate, but the fact to keep the right of using the brand APL Logistics boosted the price of the acquisition.¹⁹⁴ Even today, APL

¹⁹² Interview P, 26.07.16

¹⁹³ Interview Q, 14.09.16

¹⁹⁴ Interview P, 26.07.16

Logistics operates as a separate brand. KWE's strategy is to keep the APL Logistics brand also in the future. KWE did not realize this problem until this year since the previous work was done by an external legal and finance team during the due diligence process. It was non-transparent for KWE's top management, because the CEO as the main decision-maker and the Singapore based Managing Director of APL Logistics had their own acquisition team using composed of external providers. For that reason, important decision-makers of KWE were not actively involved in the negotiation process. Shortly after the transaction, KWE started to find more and more problems. This was one of the main reasons for the dismissal of the KWE's CEO. The whole transaction process was not transparent to board members.¹⁹⁵

M&A stage (transaction phase)

Legal and financial companies are usually quite good, but they do not have the chance to run a real company. Based on pure data analyses, it is difficult to understand the meaning behind the data. This also got KWE into trouble, especially from the human resources point of view. Discussions with representatives from human resources departments have demonstrated that elementary labor issues were not identified during the diligence process. As it turned out, KWE had many defensive measures against the negative impacts of the new labor law passed by the Chinese government in 2009. For that reason, KWE tried to separate labor contracts and position contracts. Due to the restrictive permanent contract regulation in China, KWE also set up a mechanism to avoid the permanent contract pressure since hereunder KWE would not have been in the position to dismiss any staff. By doing this, KWE had a solution to protect company benefits in the long-run as the factor 'people' was highlighted as the most important asset in the logistics industry. Given that China entered an aged society two years ago, the biggest issue KWE will face in the next 5-10 years is the payroll pressure. KWE applies a more defensive approach like the overtime or position salary to keep payroll salary lower and the structure is more reasonable from the management point of view. This was completely different at APL Logistics. An analysis of APL Logistics structure has shown that the company did not take any action back to 2009. In a short time, APL Logistics is expected to face trouble on the payroll increase, overtime charge and entire labor costs since they are handling contract logistics and ocean freight which are labor intensive businesses. A willful neglect will impact APL Logistics profit very quickly. Today, APL Logistics does not have suitable solutions to solve this issue,

¹⁹⁵ Interview R, 12.09.16

because the time window is already closed. This aspect e.g. was not mentioned in any reports of the due diligence team. KWE did not provide any internal team for the due diligence process. Due to the confidential nature of the transaction, not many people were involved into the due diligence process and the Singapore side selected their own people to do the acquisition process and they only directly reported to the headquarters in Japan. This led to the dismissal of the CEO since it was a black box.¹⁹⁶ At that time, there were also other companies showing interest for an acquisition of APL Logistics which had boosted the transaction price.¹⁹⁷ With a share of 50%, the financial part played the most relevant role in the due diligence process and the remaining 50% were distributed equally among the categories. The transaction price of \$1.2 billion for APL Logistics was mainly driven by APL Logistics' brand (represented around \$0.8 billion of the acquisition value).

Post M&A stage

KWE and APL Logistics have a regional team and group team working together daily with monthly meetings and panel discussions focusing on air freight forwarding, ocean freight, contract logistics and warehousing. KWE is trying to solve all kind of problems the company has found. On a regular basis, each region sends a so called 'synergy report' to the headquarters in Japan. The report focuses on secured business aspects and potential businesses in pipeline. This report was introduced to monitor all cross-company transactions between each other. Unfortunately, after six months of usage the results are still very poor. The biggest customer of APL Logistics in China, Lenovo, requested APL Logistics to reduce its logistics cost by 10%. Lenovo also asked the IT department to exchange EDI using Lenovo's systems. By the end of this year, the CEO of APL Logistics China must make an important decision by either accepting this pressure or closing the business with Lenovo leading to several job cuts. From the synergy point of view, KWE and APL Logistics are rather focusing on sales synergies. However, most customers are very cost-sensitive. From the financial and human resources perspective both companies still have a long action list. This also applies to procurement with APL Logistics using a luxury office with potential to merge with KWE office. They also look for opportunities in warehousing and sharing the fleet to increase the buying power. KWE also studies APL Logistics case studies regularly by introducing responsible persons to KWE based on APL

¹⁹⁶ Interview P, 26.07.16

¹⁹⁷ Interview R, 12.09.16

solutions. This might be the only synergy KWE can approach at this point since APL Logistics really has something. Contract durations of APL Logistics are generally longer than KWE contracts and KWE now tries to bring APL knowledge into the company.¹⁹⁸

3.6.2 Case study CJ Korea Express – Rokin Logistics

Company and transaction background

CJ Korea Express is South Korea's largest transport and logistics company. It provides a range of services both domestically and internationally, including inland transportation, maritime services, international air freight, parcel delivery, warehousing and distribution. The company (as Korea Express) was a subsidiary of Kumho-Asiana Group until 2011, when CJ Group companies said they would acquire a controlling 40% stake for around USD 1.7 billion, with the remainder of shares trading on the KRX. At this stage, Korea Express was South Korea's largest logistics company with terminals in South Korea's biggest ports, around 10,000 express delivery outlets and over 5,000 trucks. The company was subsequently renamed CJ Korea Express. In January 2013, CJ Group announced that it would merge CJ Express with its unlisted affiliate CJ GLS, the second largest logistics company in South Korea. The merged company would simply be named CJ Korea Express. The transaction was completed in April 2013 with the new company worth around USD 5.1 billion. On the day before the merger, CJ Korea Express unveiled a plan to become the world's fifth largest logistics company by 2020. As of 2015, CJ Group manages its portfolio of subsidiaries by grouping them together within four business segments: Food & Food Services, Home shopping & Logistics, Entertainment & Media, Bio & Pharma. The holding company for the group is CJ Corporation. For 2014, CJ Korea Express posted annual revenues of KRW 4,560 billion. This represented 23.3% of CJ Corporation's total revenues for the year. The company breaks this down into four business areas: contract logistics, parcels, forwarding, and stevedoring & shipping. Of these segments, contract logistics is the largest, comprising 38.3% of CJ Korea Express' total revenues in 2014.

After losing out on the sale of Singapore's APL Logistics, Korea's largest logistics company has won control of China's Rokin Logistics. In 2015, the company expanded its cold chain offering through its acquisition of China-based Rokin Logistics, a transportation firm that specializes in cold storage solutions for food products. The Shanghai-based company, founded

¹⁹⁸ Interview P, 26.07.16

in 1985 by brothers Zhang Yurong and Zhang Yuqing, has 210,000 m² of warehouse space and 4,000 employees. Its customers included Dow Chemical Co., McDonald's Corp. and Haagen-Dazs Co. Rokin's specialty is providing logistics services for chilled and frozen foods, chemical products and other general goods including electronics, consumer goods, medicine and equipment. Today, Rokin operates 48 terminals, 22 distribution centers, a shipping lane connecting 1,500 cities, and 1,800 vehicles for frozen food and chemical distribution throughout China. Since expanding its business to China, CJ Korea Express has provided comprehensive logistics services to Chinese customers. Through its M&A deal with Rokin, the company expects to benefit from synergy with CJ CheilJedang and CJ Freshway, two other CJ Group subsidiaries that have tapped into the Chinese market. Last year, CJ Freshway signed a contract with Yonghui Superstores, a Fuzhou-based supermarket operator, to set up two joint ventures in China.¹⁹⁹

Pre-M&A phase

From the beginning, CJ Korea Express' management was only interested in a major shareholding option due to the strategically important target. Per the company's strategic policy, CJ Korea Express purchases strategically relevant companies rather than entering different strategic partnership models such as joint ventures or minor equity investments. In this context, the major shareholding investment resulted in 71% of shares. The plans to acquire Rokin Logistics were also in line with CJ Korea's strategy to venture into the overseas market. Rokin Logistics' established business model in a strong growing market was one of the main drivers during the screening of the target.²⁰⁰ Thus, demand for cold chain equipment and cold chain transportation/distribution service grows fast at 9-12% per annum. The cold chain demand is especially driven by retailers and food manufacturers, with an annual of 20-40% from retailers and 10-15% from food manufacturers.²⁰¹ Today, cold storage market in China is quite fragmented. Total storage capacity of top 15 cold storage operators is only accounting for 10-12% of the market.²⁰² Furthermore, the expected growth in the future played a decisive role while screening the acquisition target. Although most retailers have established own cold chain operation mode, there is still unfilled demand in the cold chain sector. Even new entrants may

¹⁹⁹ GSCI Transport Intelligence (2016)

²⁰⁰ Interview S, 28.09.16

²⁰¹ Interview T, 20.09.16

²⁰² Interview U, 04.10.16

build their competitiveness with differentiated services by providing “distribution center + last mile delivery” as integrated service and by providing return service in cold chain distribution. The cold chain operating mode of food manufacturers cannot satisfy their needs. New market entrants may establish trunk line network and focus on differentiation by specialization and punctuality. In addition to that, synergy effects and a profitable growth with double-digit revenue growth rates in the past increased the attractiveness of Rokin Logistics as an acquisition target.²⁰³ Close communications with the sellers, particularly with founders and CEO made an important contribution to the planned contribution by eliminating any kind of conflicts of interest and by gaining the sellers trust. One powerful tool in this context was the demonstration of CJ Korea Express’ passion and capability to make the target even more successful with the acquisition. These measures helped CJ Korea Express to remove potential barriers during the acquisition process in advance.²⁰⁴

M&A stage (transaction phase)

The commercial (60% out of 100%) aspect had the most important role during the due diligence of Rokin Logistics followed by the financial (20%), legal (10%) and human resources (10%) due diligence. Factors including market growth, customer portfolio and business model were at the heart of the due diligence. An analysis of the structure of cold chain market (supply, demand and competitive landscape) and linked challenges and opportunities with that as well as customer portfolio with focus on contract structures built the backbone of the commercial due diligence. Paying attention to challenges helped to identify and assess future business risks. One of these challenges is the fact that it is very hard to establish an entry barrier. Entrants are always being jammed in low-level unordered competition. Additionally, a significant investment in R&D is required for the technology of refrigeration machinery, and there is uncertainty in gaining industry-leading technology. Furthermore, it is difficult to get land due to restrictions on the usage of land by government. The financial due diligence focused on profitability analyses with regards to cold storage facilities, long-haul transport and last mile delivery. Potential synergies from the combined entities, the quality of corporate culture as well as the capabilities of the management teams were the key drivers for transaction value.²⁰⁵ Rokin Logistics’ open-minded corporate culture for changes and the comparatively lean organization

²⁰³ Interview S, 28.09.16

²⁰⁴ Interview U, 04.10.16

²⁰⁵ Interview S, 28.09.16

structure with clear responsibilities and deep industry expertise of the management were significant drivers for a quite smooth acquisition. Rokin Logistics has a strong corporate culture with a targeted company vision aiming to become the Chinese market leader in cold chain/contract logistics, different company values including integrity, quality and cooperation, and a customer-focused business philosophy.²⁰⁶

Post M&A stage

One of the decisive activities to monitor the progress in the integration phase was the setup of a specific, mixed team which led all post-merger integration exercises. The post-merger integration is a system of complex processes with multiple sub-systems. Each of them can also be perceived as a separate complex adaptive system along with changes and transformational processes taking place.²⁰⁷ Considering post-merger integration, the increased organizing takes place already in the pre-merger situation when both companies still work separately and the major transitional change, the merger, has not yet happened. At this point the transition and a threshold of change take place. This is usually a moment when tension is high and self-organization creates new patterns of behavior and the emergence of a new configuration starts.²⁰⁸ Also the case of CJ Korea Express – Rokin Logistics has shown that the need for integration has become even more intense as mergers & acquisition have increasingly moved away from unrelated conglomerate mergers to related and horizontal ones.²⁰⁹ The extension of the integration and its scope, though, often depends on the motives behind the transaction – objectives, increasing the market share, increasing shareholder value, size of merging partners and many others. Therefore, it is important to determine the degree of integration. For example, deeper and more profound integration is needed if the reason for a transaction is to derive synergies in marketing or production in contrary to the transaction aimed in increasing the size of the company, where single one-area (e.g. accounting) integration would be sufficient.²¹⁰ There are many different variables that have influence on the success or failure of a merger, such as leadership styles, communication, emotions, and human relationships.²¹¹ Being open-minded and openly accommodating Rokin Logistics' working practice as well as never

²⁰⁶ Interview T, 20.09.16

²⁰⁷ Interview S, 28.09.16

²⁰⁸ Lauser (2010)

²⁰⁹ Hopkins (2008)

²¹⁰ Shrivastava (1986)

²¹¹ Lauser & Peters (2008)

hurrying up integrating the two parties influenced the positive acceptance of all affected employees significantly. The management of CJ Korea Express and Rokin Logistics studiously avoided to use the terms “integration” or “post-merger integration” to respect especially the working practices of both companies.²¹²

3.6.3 Cross-case study analysis of Chinese M&A transactions

The cross-case study analysis intends to identify the similarities as well as differences between the two case studies conducted, with respect to key factors leading to and characterizing the success or failure of mergers and acquisitions in the transportation and logistics sector in the different M&A stages. The following subsections outline the results of the cross-case study analysis.

Pre-M&A stage

The case studies have shown that there are certain reasons why transportation and logistics companies in China usually conduct merger and acquisition transactions. One of the key motivations is the extension of the product portfolio driven by increasing customer expectations. Companies have – even if partially belated – realized that it can lead to a significant competitive disadvantage if specific markets are not served. Another key reason for M&A transactions is the stabilization of the business by a more balanced portfolio. Especially in the last decade, logistics providers have felt the squeeze that customers partly expect the takeover of whole value chains. This can be both geographical and intermodal. Today, customers also premise skills in different disciplines of the logistics (e.g. contract logistics).²¹³ In addition to that, the decision for mergers and acquisitions usually derives from company strategies as it turned out using the example of Kintetsu World Express and CJ Korea Express. From the beginning, both companies were only interested in a major shareholding option due to the strategic importance of the acquisition targets. In the case of CJ Korea Express for example it was a fundamental part of the corporate strategy to venture into overseas market. Companies only enter a certain kind of strategic partnership, if they don't have another alternative. Either you must do it (e.g. to enter the market in China) or you use the partnership

²¹² Interview S, 28.09.16

²¹³ Interview W, 15.09.15

model for exit preparations.²¹⁴ Another similarity of both transactions is the focus on historical and expected business growth of the acquired companies. While CJ Korea Express was interested in Rokin Logistics' established cold chain business model in a strong growing market, Kintetsu World Express was primarily interested in APL Logistics' strong contract logistics capabilities.²¹⁵ Another conspicuousness is the role of relationship during both M&A transactions. In either case, the beneficial circumstances in terms of relationship between the involved companies were strong criteria for the realization of the transactions.

M&A stage (transaction phase)

Commercial and financial aspects are the dominating elements of due diligence processes of transportation and logistics related M&A transactions in China. This has found expression in the case of CJ Korea Express where the commercial and financial aspects represent in total 80% out of 100% due diligence efforts. Human resources and legal factors still play a rather subordinated role in transportation and logistics M&A transactions in China, whereas the case of Kintetsu World Express has shown that labor aspects (e.g. payroll pressure) can influence the business significantly in the future. Environmental aspects nearly do not play any role during due diligence processes. Basically, there is no partial due diligence, but the aim should be to conduct a holistic due diligence to evaluate the target as precisely as possible.²¹⁶ The case studies have shown that the weighting of specific due diligence factors basically depends on the respective case since each M&A transaction has its own characteristics. Based on the conducted case studies there is no specific method to identify and quantify the potential of synergies since each M&A transaction requires an individual analysis. In both cases, the approach for the identification of synergies linked with the respective M&A transaction was unknown. Additionally, the acquiring companies have preferred external audit companies to conduct the upstream due diligence process and to identify and quantify the potential of synergies instead of using internal resources. Furthermore, a strong corporate culture with a targeted company vision and a powerful brand were named as intense drivers for transaction value as it turned out in the cases of Kintetsu World Express and CJ Korea Express.

²¹⁴ Interview V, 17.07.15

²¹⁵ Interview W, 15.09.15

²¹⁶ Interview V, 17.07.15

Post M&A stage

Both Kintetsu World Express and CJ Korea Express used a similar approach to monitor the progress in the integration phase. With the establishment of dedicated mixed teams, both companies tried to introduce and monitor required measures. The case studies have demonstrated that the need for integration has become even more intense as mergers & acquisitions have increasingly moved away from unrelated conglomerate mergers to related and horizontal ones. It has been proven that the existence of a developed scheme for the integration of the acquired company is generally very helpful. A further key factor in the integration phase was the allocation of responsibilities to clearly defined and communicated individuals who are ideally familiar with integration topics. Based on the conducted case studies functional areas such as sales, procurement and accounting played a more important role in the beginning of the post M&A stage. A regular communication amongst all employees usually helped to adjust organization structures which laid the foundation of a promising integration process. Especially the case of CJ Korea Express has also shown the link and correlation of the post M&A stage with the pre-merger stage where an increased organizing already takes place and the transaction has not yet happened.

3.7 Framework for M&A's in the T&L sector in Europe & China

Based on the analyzed cases, following M&A process chain can be applied as a strategic framework for mergers and acquisitions in the transportation and logistics sector in Europe and China specifically. Geography specific deviations from the classical M&A process and additions to the classical M&A process are respectively highlighted.

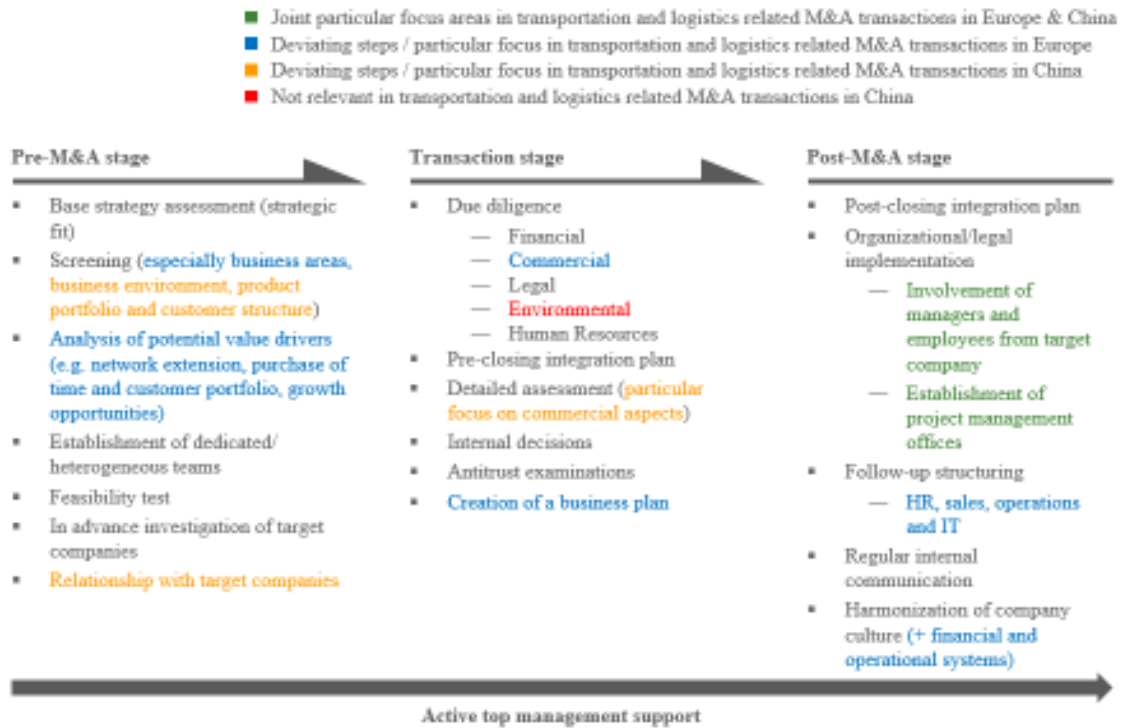


Figure 7: Overview of transportation and logistics related M&A processes in Europe & China

In the following, the different stages during the M&A process chain and the respective key decisional factors are described in more detail.

A preference of M&A transactions is to be recommended, if companies aim to build “new” core competences in a certain area in the long-term. This move is usually also linked with investments in overseas and an extension of the geographic presence from the companies’ perspective, respectively. Proper examples in this context were the acquisition of Exel by DHL with the primary objective to build up a sustainable contract logistics business in different geographic regions as well as the acquisition of Rokin Logistics by CJ Korea Express which was also in line with CJ Korea’s strategy to venture into the overseas market as the analyzed case studies have shown. The selection of a potential target ideally should happen based on the business area and “critical mass” of the target company including factors such as historical and expected market growth, product portfolio and network structure. Categories within “critical mass” can be e.g. geographical presence or warehousing space sizes in contract logistics related transactions. In China, the factor ‘relationship’ plays if not the most important role in the overall pre-M&A stage. This comprises amongst others close communications with decision makers with the aim to eliminate any kind of conflicts of interest and to gain the sellers trust. The establishment of dedicated, heterogeneous teams from different regions and functions already

in the pre-M&A stage has proved to be successful to make sure that there is a visible awareness for the planned M&A transaction and in order to identify and assess potential significant issues as early as possible allowing the acquiring company to initiate necessary measures. In Europe, Kuehne+Nagel applied this approach during the acquisition of ACR Logistics by involving only a small, ad-hoc constituted group from different regions and functions required by law. The same also applies to Kintetsu World Express and CJ Korea Express which followed the equivalent approach. In the transaction phase, qualitative aspects with a commercial focus such as the competitive landscape, product portfolio and customer structure are very important besides the financial due diligence. A critical factor for a successful due diligence is the amount of data the target company provides. The more information they provide, the more insights you get about the target company (e.g. helps to assess the “right” company value). Another important factor is the close cooperation with the different departments of the target company, since they often have more know how about the processes, products and customers of the target. While Kuehne+Nagel and CJ Korea Express benefited from a very proactive behavior of its target companies allowing to get deep insights about the company, the transaction of APL Logistics by Kintetsu World Express was rather characterized by a very restricted information transparency policy where only a small exclusive circle had access to relevant data and information. Financial and commercial due diligences play the most important role during due diligence processes (50-80% weighting). For that reason, it is very crucial to involve functionally experienced individuals into the process as Deutsche Bahn and CJ Korea Express did during the acquisition of Arriva and Rokin Logistics, respectively. Especially for the financial and commercial parts of the due diligence, it is extremely important to involve own resources so that the own employees can understand the target company as well as identify and assess the associated risks. The conducted case studies have shown that especially Kuehne+Nagel and CJ Korea Express preferred internal resources to identify and assess the potential effects of the acquisition for their current businesses. Involved individuals need to be in a position to understand what the acquisition of a specific company and the identified opportunities and risks would mean for the acquirer (e.g. increase of free cash flow). Companies can still hire external consultancies in parallel to also get an external view on the target company. In this context, DHL e.g. hired one of the leading strategy consulting firms to analyze different commercial aspects of the acquisition such as market growth forecasts and the competitive position of Exel in different regions. The duration of a due diligence should be determined based on the complexity of the transaction and business area respectively. The length of the due diligence process of the analyzed M&A transactions varied between three

months and one year. The creation of a business plan for the own company as well as target company on a standalone basis helps to identify and quantify the potential of revenue and cost synergies. In the next step, a meaningful composition of the business plans will allow to get insights into the areas where synergies can be operatively realized. Growth prospects on a standalone basis and in a consolidated view are the key drivers for transaction value. In this context, factors such as business area (e.g. contractual-driven vs transactional-driven), target size, customer mixture as well as historical analyses can have different impacts on the transaction value. The insights from the Deutsche Bahn – Arriva acquisition e.g. underline this from Deutsche Bahn’s point of view in different aspects such as limited growth options in Germany and Arriva’s strong geographic presence in Europe.

The establishment of a kind of Project Management Office helps to monitor the progress in the integration phase. In addition to that, a successful integration of an acquired company requires first the willingness of managers from the acquired company to take responsibility and second a parallel harmonization of financial and operational systems. The case studies have shown that especially Deutsche Bahn and CJ Korea Express combined these aspects professionally allowing them a promising post M&A stage. Transparent communication along the whole post M&A stage is a significant success factor for the integration of an acquired company which also comprises an active top management support and responsibility from the beginning. The acquisition of ACR Logistics has shown that Kuehne+Nagel partially failed to apply a transparent communication which resulted in an increasing dissatisfaction among the employees. Being open-minded and openly accommodating Rokin Logistics’ working practice as well as never hurrying up integrating the two parties can influence the positive acceptance of all affected employees significantly as the case of CJ Korea Express has shown.

3.8 Conclusion

The conducted European case studies in this research paper conclude that there is no single method to guarantee a successful M&A transaction. The success of an M&A transactions depend on individual factors. One of the most important strategic ideas for an M&A transaction is the purchase of time and a customer portfolio which is mostly combined. In the transportation and logistics industries companies additionally have the advantage that synergy effects are principally nearer since they are always in a related chain, unless they are doing a regional diversification, then they don’t have these synergies. Most of the transactions are

complementary. Companies normally tie the logistical core of services since otherwise they will be late competitively. Therefore, companies' M&A experience in the transportation and logistics industries have to be better than usual. Else companies always have the issue with unrelated diversification. With an M&A transaction, companies win time, customers as well as contracts. What companies actually acquire are contracts. At this point, companies also have to analyze the respective contract structures and customer relationships. In the end, companies want to get the contracts. In this context, factors such as the contract duration and potential switching costs play an essential role. A contract e.g. can be short, but if switching costs are high, you can also cope with a one-year contract. Make or buy is another important factor at this point. A make decision cannot keep up for a long time. In general, you have to distinguish between an entrepreneur and manager perspective. A manager rather acquires companies, thus he reduces the failure rate and puts the growth basis for the next 2-3 years at least. One of the most important advantages of an M&A transaction is the time advantage. Moreover, you want to block this way for competitors since you are not acting alone in the market. Normally, there are one-time windows where you can grow. Therefore, price often doesn't play the main role as you can convince your supervisory board with growth figures adjusted accordingly which fades the transaction price into the background.

Growth options and cash flow generation are critical factors during the screening of an M&A target. Another fact is the slight risk of a contract portfolio. If the target e.g. has a variety of contracts, the loss of single customers won't affect the acquired company to a special degree. In this context, it is also important to look into the sectors where the customers are active since this factor provides an indication for the probability of success or failure from the customer perspective. Another important factor during the screening is the acceptance and willingness of the management of the target company to help, since acquiring companies often require their specific expertise (e.g. product, market, contacts etc. → value adding). Integrability is another key factor in this context. Does the acquiring company have the necessary integration skills and experience? Analyzing the market and seller expectations normally enable a successful M&A transaction. Price is not always the most important factor as e.g. family-owned companies e.g. rather focus on name continuity and prefer respectable partners. Companies generally must adapt themselves to the seller. What is the seller's long wish list? Later in the transaction phase, qualitative aspects become more important.

There is no specific method to quantify the potential of synergies linked with M&A transactions. Synergies are usually calculated based on different model inputs through the

acquiring companies or they are estimated based on a good judgment. One of the key aspects is also the consideration of negative synergies as some customers or products melt away to avoid a dependence from just one supplier. Positive synergies are especially in the first period easier to illustrate while both companies are still operating independently. After the integration, the measurement of synergies however becomes extremely difficult. Afterwards, you can just benchmark your performance against competitors. Main drivers for transaction value are the growth potential of the acquired company and the slight risk of the contract portfolio. The real transaction price or company value however varies from company to company depending on their strategic point of view. Key method in the practice to assess a company value is the calculation of the so-called EBITDA multiple (fair market assessment). Due to the qualitative factors focus in this research project, quantitative aspects during M&A transactions haven't been analyzed in detail. Acquiring companies should still allow a certain autonomy for acquired companies. Acquiring companies have to offer promotion aspects for the employees of the target to increase the success rate in the integration phase. Furthermore, the harmonization of IT systems is essential from the customer's perspective to make sure that they get the wont service quality.

The Chinese case studies have demonstrated that a good relationship between the acquiring company and the target company is an elementary prerequisite for a promising transaction since it provides the basis for the different stages along the M&A process. Key strategic motifs for M&A transactions is the expansion of business areas, diversification of product portfolio and the purchase of a customer portfolio. In the transportation and logistics industries companies additionally have the advantage that synergy effects are principally nearer since they are always in a related chain, unless they are doing a regional diversification, then they don't have these synergies. In China, the success of an acquisition or a partnership depends on the knowledge of the environment and the quality of relationships. It is also closely related to the quality of the advice received to select the best possible partner, to approach him, and to open and close the discussion in a smooth way. Relationship, growth options and portfolio supplement are critical factors during the screening of an M&A target. Another important factor during the screening is the acceptance and willingness of the management of the target company to help, since acquiring companies often require their specific expertise (e.g. product, market, contacts etc. → value adding). There is no specific method to quantify the potential of synergies linked with M&A transactions. Synergies are usually calculated based on different model inputs through the acquiring companies or they are estimated based on a good judgment. One of the key aspects is also the consideration of negative synergies as some customers or products melt away to

avoid a dependence from just one supplier. Positive synergies are especially in the first period easier to illustrate while both companies are still operating independently. After the integration, the measurement of synergies however becomes extremely difficult. Afterwards, you can just benchmark your performance against competitors. The case studies have shown that one of the main drivers for transaction value is 'brand' besides factors such as growth potential of the acquired company and the slight risk of the contract portfolio. The real transaction price or company value however varies from company to company depending on their strategic point of view. Due to the qualitative factors focus in this research project, quantitative aspects during M&A transactions haven't been analyzed. Acquiring companies should still allow a certain autonomy for acquired companies to increase the support willingness of the target. To be successful, an acquisition, a merger, or a partnership in China requires the mobilization of a compact team of specialists to ensure a rigorous process of identification, acquisition and integration of the targets. Companies are more successful at M&A when they apply the same focus, consistency, and professionalism to it as they do to other critical disciplines.

4 CEO turnover following mergers and acquisitions in the transportation and logistics sector²¹⁷

4.1 Introduction

The global transportation and logistics industry saw 284 mergers or acquisitions deals announced or closed in 2017, an increase of 18% compared to 2016.²¹⁸ While deal value increased by 5% to \$125.5 billion during the year, average deal size decreased by 11% in 2017 due to higher growth in volume. Megadeals were less of an impact on overall sector metrics since transactions with announced value greater than \$5 billion made up 21% of deal value in 2017, compared with 33% in 2016. Strategic investors continued to account for most of the deal activity in the sector, but financial buyer activity (e.g. private equity) increased to account for 48% of volume, up from 45% in 2016. Strategic buyers dominating the market sought cost efficiencies, access to new technology (such as telematics, fleet and load matching) and vertical and horizontal expansions into new customer bases and geographic locations. The industry benefited in 2017 from cross-border and international trade, the strength of the US dollar, low-fuel costs and rising level of consumer spending. One of the noteworthy transactions in recent years was the acquisition of Freightex by UPS. The cross-border acquisition of Freightex, a provider of truckload, less-than-truckload, specialized and refrigerated over-the-road services, expanded UPS' presence in the European market. The transaction followed UPS's acquisition of Coyote Logistics in 2015.²¹⁹ Every merger and acquisition deal presents a different goal and a different mix of critical issues to manage. Traditionally, the strategic rationales behind mergers and acquisitions ranged from simple diversification to squeezing value out of poorly managed companies through "active investing" and exploiting economies of scale. Since the early 1990s, companies have increasingly used mergers and acquisitions to change the scope and/or competitive environment of their business. For example, some strategic acquisitions provide companies with stepping-stones into businesses or customer segments related to the buyer's core activities. In other cases, acquisitions may broaden the scope of the acquirer's business by adding new capabilities.²²⁰

²¹⁷ Alparslan/Spinler (2019): CEO turnover following mergers and acquisitions in the transportation and logistics sector – Unpublished Working Paper

²¹⁸ Capstone Partners (2017)

²¹⁹ PricewaterhouseCoopers (2018)

²²⁰ Gadiesh/Buchanan/Daniell/Ormiston (2002)

The primary research focus to date has been the study of financial returns from both an accounting and a finance perspective.²²¹ We have very limited systematic evidence, however, that would suggest how a merger or an acquisition in the logistics industry affects the management of an acquired company.²²² The intent of this research paper is to build a foundation of organizational research on merger and acquisitions in the logistics industry by investigating the employment status of target companies' CEO's following mergers and acquisitions.

4.2 Theoretical background and hypotheses development

Mergers and acquisitions can basically lead to instability due to poor attempts at synergy. Acquiring companies that buy firms specializing in different areas or regions underestimate or misread problems of integration and fail to manage target employees as well as target management teams. This often leads to poor post-merger performance and, ultimately, failure in over half of all M&A's. The fate of the leadership team and of the CEO is key in this pattern, losing key players means losing exactly the firm-specific knowledge that could help to make a merger or acquisition a success.²²³ Companies usually replace their mergers' or acquisitions' CEO's as one of the first steps of integration. Beyond signaling the buyer's intent to change things, these actions also are a way of aligning the vision, strategy, and operating routines of the two companies. In fact, many experts believe that companies can create value from takeovers merely by replacing incumbent management teams with their own, more skilled managers. Many emerging multinationals instead aim to keep CEO's intact. This shows the buyer's confidence in the company, its strategy, and the quality of its talent. It also dispels any notion that poor performance in some way led to the takeover. As a result, the acquirers don't lose human and social capital or the CEO's industry- and company-specific knowledge; in fact, they can harness all that for the benefit of both parties.²²⁴

Since the 1990's, supervisory boards have become more sensitive to performance in each accounting period, and the frequency of CEO turnover has increased substantially compared to

²²¹ Halpern (1983)

²²² Walsh (1988)

²²³ Krug/Shill (2008)

²²⁴ Kale/Singh/Raman (2009)

the 1970's and 1980's.²²⁵ The survival and development of a firm in the long-term depends increasingly on the ability to fascinate and retain people within the organization with skills and expertise necessary to deal with expected challenges.²²⁶ Forced CEO turnovers also occur due to conflicts between the board/buyer and the CEO, and revelations of intentional wrongdoing by the CEO.²²⁷ CEO's on the acquisition side of an M&A deal can make life easier and the transaction less risky by figuring beforehand the best way to retain key executives and employees. Leaders do well to develop effective retention strategies for executives as well as key stakeholder employee groups that give the soon-to-be-acquired company its reputation and value. This helps amongst others to keep customer relationships intact and to allow for an orderly transfer of the knowledge required to operate a business going forward.²²⁸ Most companies end up with precious little operational autonomy after they've been acquired. Even when they are not integrated, they don't get much of a free hand. Moreover, it is clear who the buyer is – and who has been bought. By contrast, emerging multinationals rarely get involved in day-to-day decision making – even on key issues such as staffing or pricing – unless asked to do so. They assume that incumbent teams know their customers, organizations, and rivals best. Such freedom slows the pace of change, but it has distinct advantages. Independence minimizes the likelihood of poor performance after a takeover; acquirers often make bad decisions because they don't understand the acquisition's business. In addition, autonomy motivates executives to do better. Many CEO's feel lucky to have a parent willing to invest in them, and a tremendous responsibility to deliver results.²²⁹

The turnover of CEO's following a merger, or an acquisition has received attention from both managers and academicians. There is no consensus in the academic community about the extent or desirability of top management turnover following mergers and acquisitions.²³⁰ One of the rules for successful acquisitions is that the acquiring parent company must be able to supply top management for the target company within 1 year.²³¹ Parent companies' mind are often to acquire and successfully integrate a team of skillful and experienced managers. In fact, the acquisition of the target's top management may be a key incentive of the merger. If they are appropriate, there may be not strong pressures on the target's managers to leave; or, if the

²²⁵ Kim/Kim/Kwak/Byungjin/Lee (2018)

²²⁶ Biscotti/Mafrolla/Giudice/D' Amico (2018)

²²⁷ Pukthuanthong/Ullah/Walker/Zhang (2018)

²²⁸ Mercer (2016)

²²⁹ Kale/Singh/Raman (2009)

²³⁰ Walsh (1988)

²³¹ Drucker (1981)

pressures are there, some acquiring companies may take steps to ensure the retention of the newly acquired management teams.²³² A range of theoretical perspectives demonstrate the underlying factors of top management turnover following a merger or an acquisition. At least three forces may contribute to such turnover. First, mergers and acquisitions propagate uncertainty among top managers.²³³ A higher than usual top management turnover rates following a merger or acquisition would be expected, given that uncertainty and a shortage of precious information has been related to turnover purpose.²³⁴

Studies have investigated the turnover rates of target managers after takeovers and documented the high levels of replacement by the acquiring companies. According to that, cumulative turnover rates of 26%, 39%, 49%, 55% and 61% after 1 to 5 years of the takeover announcements (respectively) were reported.²³⁵ Another study reported a high turnover rate after proxy contests. Of the 39 transactions examined, 13 experienced management departures during the first year after the announcement and seven experienced departures during the second and third year. The turnover rate over three years was 51.28%.²³⁶

In recent years, institutional shareholders have been seeking to protect their interests by putting more and more pressure on board of directors. It is not easy for directors – especially outside directors – to add value on proposed mergers and acquisitions. First, directors often must rely on information and advice provided by people whose interests are not necessarily aligned with those of the company's owners. Management's primary advisors (investment bankers) are motivated to "close the deal", regardless of the attractiveness of the transaction to shareholders. Second, directors may find that top managers' interests are not fully aligned with the interests of investors. For example, the deal may have financial, career, prestige, or other benefits for executives that are no value to shareholders. Finally, directors often lack access to information that would allow them to give better advice. Most of the responsibility for this shortfall rests with management, which is often unprepared, or unwilling to present a clear view of the strategic and economic rationale for a deal.²³⁷ Managers who either cannot accept or decrease uncertainty are presumably to withdraw from the firm. Second, all organizations have

²³² Pitts (1976)

²³³ Simmons (1984)

²³⁴ Walsh/Ashford/Hill (1985)

²³⁵ Walsh (1989)

²³⁶ DeAngelo/DeAngelo (1989)

²³⁷ Armour (2002)

their own specific culture.²³⁸ The merging of two different company cultures can produce ‘feelings of hostility’ and significant inconvenience. Managers who are either indignant or unable to adapt to a potentially profound culture shock are likely to depart from their organizations.²³⁹ Third, mergers and acquisitions have been argued to reflect a market for corporate control, wherein companies compete for the right to determine the management of a target company’s resources.²⁴⁰

The scope of top management turnover may depend on the type of merger or acquisition. It is crucial to note that different types of synergies might result from any respective acquisition. These can be, for example, collusive, operational and financial synergies.²⁴¹

Early efforts to understand the reasons of high post-merger CEO turnover in target firms focused on a multitude of merger, industry, firm, and individual characteristics.²⁴² One of the investigated aspects in this regard is the merger and acquisition negotiation process including analyses such as pre-M&A interest in the target company, hostile versus friendly negotiations and the premium paid for the target company. Thus, only the hostility of merger negotiations explained high turnover rates in the first year after the acquisition.²⁴³ Studied merger characteristics show that hostile acquisitions represent an insignificant number – less than 5% of all acquisitions transacted in any year. According to that, merger characteristics appear to be a poor predictor of future target company turnover.²⁴⁴ The relatedness of industry differences has focused primarily on the issue of relatedness. Early research tested the hypothesis that acquiring firms were more likely to view target executives as dispensable when they acquired firms that operated in similar industries or product categories. In unrelated acquisitions, acquiring firms have less knowledge of the firm they are acquiring and would therefore be favorably inclined toward retention of target company executives.²⁴⁵ While previous analyses found no direct correlation between relatedness and turnover, an analysis of merger characteristics, however, did find indirect associations. Thus, its executives were more likely to leave four years after the merger, when a target company was approached with a merger proposal by an unrelated acquiring firm after it had been subjected to significant merger

²³⁸ Smirich (1983)

²³⁹ Buono/Bowditch/Lewis (1985)

²⁴⁰ Fama/Jensen (1983)

²⁴¹ Chatterjee (1986)

²⁴² Krug/Aguilera (2015)

²⁴³ Walsh (1989)

²⁴⁴ Krug/Nigh (1998)

²⁴⁵ Krug/Aguilera (2015)

interest.²⁴⁶ A more promising approach for understanding industry effects may be found in studies of cross-border acquisitions. Using the concept of transnational integration, it was found that turnover rates in U.S. target companies was significantly higher when the merging firms operated in a global industry. This effect began immediately after the acquisition and intensified through the sixth year following the acquisition, suggesting that global industry effects are immediate and long-term.²⁴⁷ Previous studies of industry relatedness focused on whether the acquiring firm had an adequate supply of managers with enough industry knowledge to operate the acquired company after the acquisition. In contrast, other studies focused on the desirability of retaining target company managers given industry structure. In global industries, companies benefit by standardizing product designs, manufacturing processes, distribution channels, and marketing practices. Standardization lowers costs through scale effects and provides the firm leverage across a larger sales base. It also has two important human resource effects. First, local managers – that is target company managers – are less critical to the global firm’s integration efforts, since standardization reduces the need for local market knowledge. Second, the global firm’s existing managerial base becomes a critical resource for transferring the firm’s strategy abroad. In multi-domestic industries, in contrast, firms benefit from local adaptation rather than standardization. Local managers become a more critical resource for helping the global firm to adapt its product and processes to the local market. These findings suggest that managers’ firm-versus industry-specific knowledge may be more influential in enabling the acquiring firm to successfully transfer capabilities and integrate the target firm.²⁴⁸

Research on firm characteristics has concentrated primarily on target company performance prior to the acquisition and on the market for corporate control. Previous studies found that poor accounting performance in target companies relative to the acquiring firm is associated with greater target company executive departures during the first two years after the acquisition.²⁴⁹ Poor pre-acquisition stock performance is also associated with significantly higher turnover when the target company is acquired by a corporate raider.²⁵⁰ The association between pre-acquisition performance and post-acquisition turnover raises the question of whether poor performance is a primary motivating factor behind merger and acquisition activity. According to the market for corporate control, firms that perform below shareholder expectations become

²⁴⁶ Walsh (1989)

²⁴⁷ Krug/Nigh (1998)

²⁴⁸ Krug/Aguilera (2015)

²⁴⁹ Hambrick/Cannella (1993)

²⁵⁰ Walsh/Kosnik (1993)

takeover targets. Outside firms may compete for control of underperforming firms, replacing perceived incompetent target firm executives immediately after the acquisition to improve performance.²⁵¹

Individual characteristics are an important determinant of organizational success. They affect how top management team members interact and influence both the quality of decision making and the efficiency with which decisions are implemented.²⁵² Certain types of executives are more likely to depart more quickly than others. More senior managers, for example, tend to depart sooner after the acquisition. In an appropriate study, 39% of the target company CEO's, presidents, and chairs left within five years after the acquisition. In contrast, a significantly lower number (27%) of vice presidents, controllers, secretaries, and treasurers left during the same period.²⁵³ The loss of more senior executives has important organizational implications since it disrupts strategic projects and degrades leadership continuity.²⁵⁴ When the most senior executives depart, a leadership vacuum is created in the target company that must be filled by the acquirer. Executives from the acquiring firm, however, often lack the firm-specific knowledge needed to quickly step in and make informed strategic decisions. In many cases, however, replacing the most senior executives in the target company is viewed as having significant symbolic value. It signals the acquiring firm is in charge.²⁵⁵ As shown above, there are multiple factors which might influence the turnover probability of incumbent CEO's at the time of an M&A transaction. Previous CEO turnover related studies and research have demonstrated that particularly performance metrics such as Return on Assets as well as individual characteristics of incumbent CEO's of the target companies including age and tenure of incumbent CEO's might have an impact on the turnover probability.

The time as a CEO represents a significant investment in company-specific human capital for both the individual and the company. Both make these investments awaiting of future return, while age is a major factor determining the degree of company-specific human capital investment. The older a CEO is, given that all else being equal, the fewer the productive years of work that remain to that individual.²⁵⁶ Therefore, investment in human capital tends to decline with increasing age. Acquisitions change the circumstances for CEO's. These require

²⁵¹ Krug/Aguilera (2015)

²⁵² Schweiger/Sandberg (1989)

²⁵³ Walsh (1988)

²⁵⁴ Schweiger/Ivancevich/Power (1987)

²⁵⁵ Pfeffer (1981)

²⁵⁶ Buchholtz/Ribbens/Houle (2003)

adjustment to a new setup of characters with new characteristics and expectations. An incumbent CEO is less likely to be willing to invest the time required in generating company-specific human capital the more that progressed age limits the time available to generate results from that investment. From a CEO's point of view, age might also have an influence on the perceived value of future returns. The factor 'money' for example differs in importance at different stages. The departure rate might increase among middle-aged and older CEO's since financial and career security becomes less important. This weakening of the departure rate should start to reverse itself as CEO's pass middle age and retirement age approaches. Usually, the aging process continually reduces the expected value of future earnings as an individual nears the end of his or her professional career. This shrinkage of the value of future earnings is accompanied by a rise in the value of retirement income. These combine to further reduce the readiness for investment in company-specific skills.²⁵⁷

Hypothesis 1: High values of age of incumbent CEO's of a target company increases the probability for CEO turnover.

In the course of time, CEO's of companies develop expertise that only has value within that specific firm. Consequently, the longer a CEO has been with a company, the higher that CEO's level of company-specific human capital. These company-specific human capital investments pay off initially in increased productivity for the company. Once a firm is acquired, however, that investment in company-specific human capital may lose its value for various reasons such as different expertise is now required, the CEO's expertise may duplicate that of a manager in the buying firm or the new owners may not attach value to the CEO's previous performance.²⁵⁸ Acquiring companies may be less interested in keeping the CEO of its takeover due to the embeddedness that develops with tenure. Over time, the information sources of CEO's become increasingly filtered, and their interest in the task at hand diminishes, and yet their power increases.²⁵⁹ The longer a taken over CEO's tenure, the more difficult it gets to integrate the taken over company and the greater the expectation for the acquiring company to cause the CEO's departure. Besides increasing the probability of company-initiated involuntary CEO turnover, CEO tenure can motivate an individual top executive to leave voluntarily. The longer a CEO has been with a company, the more challenging it becomes for that person to remain in

²⁵⁷ Hambrick/Mason (1984)

²⁵⁸ Buchholtz/Ribbens/Houle (2003)

²⁵⁹ Hambrick/Fukutomi (1991)

the company when substantive changes are implemented. However, I assume that this doesn't apply to transportation and logistics related M&A transactions since retaining specific industry know-how and long-standing relationships with primarily business customers of incumbent CEO's is clearly more important compared to other industries.²⁶⁰

Hypothesis 2: High values of tenure of incumbent CEO's of the target company decreases the probability for CEO turnover.

Previous studies have demonstrated that also 'relatedness' might have a crucial impact on the CEO turnover after mergers and acquisitions. In this context, relatedness is usually defined as the extent to which acquired and acquiring companies serve similar clients or utilize similar production processes.²⁶¹ In the present research paper, I consider two categories of relatedness, based on market/product parallels between the acquirer and the acquired company. If the two companies neither serve the same business segments, nor have the same or similar customers, the respective acquisition is unrelated. Remaining acquisitions and two firms being in essentially the same business segments are related. In most unrelated acquisitions, acquiring companies act as a passive investor and wish strategic continuity in the acquired company.²⁶² In related merger and acquisition transactions, acquiring executives most likely have some valuable skills that can be brought to bear, but not to the extent that they are able to entirely replace leaving executives in the acquired company.²⁶³ The rarer the available substitutes for a given CEO's skills, the more the company value that CEO.²⁶⁴ Thus, the value an acquiring company places upon the industry-specific skills of a CEO is related to the relative profusion of those skills within the acquiring company.²⁶⁵ Since unrelated diversifiers do not possess of the experience necessary to the operation of the acquired company, the retention of the pre-acquisition CEO seems essential.²⁶⁶ If the existing businesses of acquiring companies are in areas unrelated to that of the acquired company, the acquirer might lack the specific human

²⁶⁰ Buchholtz/Ribbens/Houle (2003)

²⁶¹ Cannella/Hambrick (1993)

²⁶² Ravenscraft/Scherer (1988)

²⁶³ Cannella/Hambrick (1993)

²⁶⁴ Frederickson/Hambrick/Baumrin (1988)

²⁶⁵ Buchholtz/Ribbens/Houle (2003)

²⁶⁶ Cannella/Hambrick (1993)

capital required to manage the acquisition process. As a result, the company will require and value the industry-specific expertise of the CEO.²⁶⁷

Hypothesis 3: If the acquirer and target company are related, the greater the chance of CEO turnover at the time of the M&A transaction.

When the acquired company has shown poor pre-acquisition performance, theory proposes that executive departure will lead to performance improvement.²⁶⁸ The vast majority of turnover research typically applies the accounting measure of Return on Assets (ROA), Return on Sales (ROS) or some other variation to evaluate firm performance.²⁶⁹ Performance results suggest that CEO's are more likely to leave their companies after bad years than after good years.²⁷⁰ Prior research indicates that the probability of CEO turnover is indirectly proportional to financial performance metrics including particularly Return on Assets. ROA is an extremely visible accounting metric that is carefully assessed by both executives and capital markets.²⁷¹ Various studies prompt that both public- and private-company CEO turnovers are a consequence of bad performance as captured by negative ROA and sales growth, confirming prior indication that poor performance drives CEO turnover decisions.²⁷² On the other hand, if acquired companies have shown good performance in pre-acquisition periods, there are reasons to believe that CEO turnovers at the time of the respective M&A transactions will be principally harmful.²⁷³ In the residual effect of acquisitions, CEO turnovers might demonstrate that something has gone wrong with the transaction or that the leaving CEO's were in some way unsatisfactory.²⁷⁴ Independent from the message, this fact may disrupt the ongoing strategy of the acquired company, leading to performance declines.²⁷⁵ In this research paper, I use Return on Assets to measure the accounting operating performance of the acquired companies.

Hypothesis 4: The worse the Return of Assets (ROA) of a target company, the greater the CEO turnover probability at the time of the M&A transaction.

²⁶⁷ Buchholtz/Ribbens/Houle (2003)

²⁶⁸ Cannella/Hambrick (1993)

²⁶⁹ Zhang/Wierschem/Mediavilla/Hong (2016)

²⁷⁰ Lausten (2002)

²⁷¹ Ballinger/Marcel (2010)

²⁷² Gao/Harford/Li (2017)

²⁷³ Cannella/Hambrick (1993)

²⁷⁴ Pfeffer (1981)

²⁷⁵ Cannella/Hambrick (1993)

4.3 Data and methodology

To test the hypotheses, the research sample comprised a group of acquired or merged companies in the transportation and logistics industry. I have obtained a sample of completed mergers and acquisitions of companies in the transportation and logistics industry worldwide announced and effective between 2013 and 2018 from the Securities Data Corporation (SDC) Mergers and Acquisitions database. The initial sample of mergers and acquisitions includes all worldwide transactions listed by SDC with announcement and effective dates between January 1st, 2013 and June 30th, 2018, that meet the following criteria: (i) the transactions are completed; (ii) the transaction volumes are \$1 billion or greater and (iii) the transactions involve transportation equipment, aerospace and aircraft, transportation and shipping (except air) as well as air transportation and shipping companies as targets. This results in a sample of 116 completed transactions. I analyze only completed M&A transactions since the focus of this research paper is focusing on target CEO retention.

In this research paper, I use eleven independent variables in total, whereof ‘Age’, ‘Tenure’, ‘Relatedness’ and ‘Return on Assets’ primarily aim to test the formulated hypotheses. The remaining, rather supporting independent variables covering ‘EBIT’, ‘EBITDA’, ‘Net Income’, ‘Total Assets’, ‘Net Sales’, ‘Transaction Value’ and ‘Gender’ have been also considered to analyze their potential impact on the CEO turnover probability.

‘Age’ was the age, in years, of the incumbent CEO of the target company at the time of its acquisition. CEO ages ranged from 39 to 87 with an average age of 54 years. ‘Tenure’ illustrated the tenure of the incumbent CEO in the acquired company at the time of its takeover. The tenure span ranged from 12 to 420 months while the average tenure corresponded to 83 months (~7 years). With a tenure of 65 months, the median was lower compared to the average tenure. ‘Relatedness’ was a measure of the extent to which an acquiring company was related to the target company. 79 out of 116 transactions were related. ‘Return on Assets’ expressed the return of assets of the target company for the last twelve months before the effective M&A transaction in percentage. The Return on Assets ratio of the companies ranged from -18.1% to 17.0%. ‘Gender’ showed the gender of the incumbent CEO of the acquired firm at the time of the M&A transaction. With 107 male CEO’s, there was a significant deviation regarding the number of female CEO’s (9). The average tenure of female CEO’s was lower than both the average and median tenure across the whole sample. ‘Transaction Value’ represented the value of the respective M&A transaction in USD million. The transaction volumes ranged from USD 1,000

million to USD 23,600 million with an average transaction volume of USD 3,532 million. ‘EBIT’ represented EBIT of the target company for the last twelve months before the effective M&A transaction in USD millions. ‘EBITDA’ as a metric used for the evaluation of a company’s operating performance expressed the target company’s profits for the last twelve months before the effective M&A transaction in USD millions. The EBITDA figures ranged from USD -435 million to USD 12,928 million. ‘Total Assets’, ‘Net Sales’ and ‘Net Income’ expressed the combined amount of a target company’s fixed and current assets, total sales of a target company after subtracting discounts, returned goods and allowances of goods and the amount of accounting profit a target company has left over paying off all its expenses, respectively.

The dependent variable ‘Turnover’ expressed whether the incumbent CEO of the target company has left the company at the time of the M&A transaction. In our sample, 48 CEO’s (whereof 2 female CEO’s) left the company, while 68 CEO’s continued in their function as CEO’s. This is equivalent to a retention rate of 69%. In our statistical model, M&A transactions with a CEO turnover were coded as “1”, while the other group got a “0”.

Data collection on “Turnover” begins with both announcement and completion dates of the M&A transaction reported by SDC. For each target firm, the individual occupying the position of CEO has been identified using sources such as company investor relations documents as well as company websites. All necessary data points regarding the selected independent variables have been found via company reports, CEO curriculum vitae, etc., whereas the transaction volumes were extracted from the SDC Mergers and Acquisitions database.

Due to the existing structure of our variables and our target to predict the probability that an incumbent CEO will leave the company at the point of an M&A transaction, I apply the logistic regression model. Logistic regression is a specific form of regression and is one of the most frequently used methods as research applications.²⁷⁶ Cox laid down the theoretical basis for the logistic regression model.²⁷⁷ Cox and Snell noted that it has been known since the 1970’s how to enhance Fisher’s exact test theory to logistic regression models.²⁷⁸ In logistic regression, the connection between one dependent (in our hand the CEO turnover with 1 = ‘Turnover’ and 0 = ‘No Turnover’) and one or more independent variables is investigated. It allows to predict a categorical dependent variable (non-metric) based on one or more categorical (in our case

²⁷⁶ Loog et al. (2011)

²⁷⁷ Cox (1970)

²⁷⁸ Cox/Snell (1989)

‘Gender’ and ‘Relatedness’, which are dummy variables that can only take the values 0 or 1) or non-categorical (in our case ‘Age’, ‘Tenure’, ‘Return on Assets’, ‘EBIT’, ‘EBITDA’, ‘Net Income’, ‘Total Assets’, ‘Net Sales’ and ‘Transaction Value’) independent variables.²⁷⁹ The coefficients subsequent from both the equations are similar, which explains the relative impact of each predictor variable on the dependent variable. In discriminant analysis, the non-metric dependent variable is predicted built on metric-independent variables and categorizing the members or objects in each group based on discriminant z scores. It requires the calculation of cutting scores and based on that the observations are allocated to each group. The major differences between these three models are shown in table 1:

Table 1: Differences of the three methods²⁸⁰

	Regression analysis	Discriminant analysis	Logistic regression
Dependent variable	Metric (non-categorical)	Non-metric (categorical)	Non-metric (categorical)
Independent variable	Metric (non-categorical)	Metric (non-categorical)	Metric or non-metric
Assumptions	All major assumptions like linearity, normality, equality of variance and no multicollinearity	Normality, linearity, equality of variance and covariance	Not based on these strict assumptions except multicollinearity. Robust even if these assumptions are not met

A logistic regression model was built to determine the relationship between CEO turnover and potential factors (explanatory variables). If the estimated probability of the event happening is greater than 0.5, then the occasion is classified as occurring (in our study CEO turnover occurring). If the likelihood is less than 0.5, then the occasion is classified as not occurring (in our case no CEO turnover). The general proportion of the classification measure is usually applied to assess the effectiveness of the predicted cataloging against the actual classification. The odds ratio presents the degree to which raising the corresponding measure by one unit impacts the odds ratio. If the value of the odds ratio exceeds 1, then the odds of a result happening increase; if the figure is less than 1, any increase in the predictor leads to a decrease in the odds of the result happening. Odds ratios in logistic regression can be understood as the

²⁷⁹ Al-Ahmadi/Al-Ahmadi/Al-Amri (2013)

²⁸⁰ Sreejesh et al. (2014)

outcome of one unit of change in X of the predicted odds ratio with the other variables in the model held constant.²⁸¹

In this case of forecasting the occurrence of CEO turnover, the target of applying logistic regression will be to determine the model which best explains the connotation of the presence or absence of a turnover Y , the dependent variable that is 0 or 1 for its two probable groups, with a group of independent variables including dummy variables X_1, X_2, \dots, X_n , as described above. The mathematical modelling method known as logistic regression defines the expected value of Y in terms of the following expression²⁸²:

$$P(Y) = \frac{1}{1 + e^{-z}} \quad (1)$$

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \varepsilon_i \quad (2)$$

where $P(Y)$ is the likelihood of that a case is in a category, e is the base of natural logarithms, Z is the linear equation of the model, β_0 is the constant of the equation, β_1 to β_n are the coefficients of the predictor variables, X_1 to X_n are the independent variables and ε is the random error. The logits (log odds) are the β coefficients (the slope values) of the regression equation. The slope may be understood as the modification in the average value of Y from one unit of change in X . Logistic regression analyzes changes in the log odds of the dependent value, not changes in the dependent value as ordinary least square (OLS) regression ensures.

Logistic regression does not have a corresponding to the R^2 that is found in ordinary least square regression. Alternative methods are suggested by scientists for calculating the clarified difference, referred to as pseudo R^2 values, such as the Cox and Snell R^2 and Nagelkerke R^2 figures. These two measures typically have lower values compared to the conventional R^2 in ordinary least square regression but are understood in the same way but with more caution. Nagelkerke R^2 is a modification of the Cox and Snell R^2 , which cannot have a value of 1. Therefore, it is more suitable to apply and report the Nagelkerke R^2 value.²⁸³ The calculation of Nagelkerke R^2 is as follows:

²⁸¹ Burns /Burns (2008)

²⁸² Field (2000)

²⁸³ Field (2000)

$$R^2 = \frac{1 - e^{\left(\frac{-2(LL_m - LL_0)}{N}\right)}}{1 - e^{\left(\frac{2LL_0}{N}\right)}} \quad (3)$$

where LL_m and LL_0 are the log-probability of the model and intercept (the model without any explaining variable), respectively, and N is the sample size.²⁸⁴

Logistic regression is useful for making inductive inferences using a sample of data, in a way that the probability of occurrence of each state of the target variable may be deduced from the values of the predictor variables. It has shown to be a powerful tool that produces robust models, and it is broadly used in the predictive modelling of species' distributions starting from presence/absence dates.²⁸⁵ However, classification success using logistic regression is sensitive to the relative proportion of presences and absences in the sample, independently of the fit of the model. The logistic function is symmetric, and its inflection point corresponds to a probability (P) value of 0.5. This value is commonly used as a default threshold above which to assume that the model predicts species presence. However, when the proportions of presences and absences, are not equal within the sample, the logistic regression output within the function's domain is not symmetrical, but rather deviates towards the extreme that has a greater number of cases.²⁸⁶ In this way, the probabilities are biased towards the state that is more frequent within the sample, but not necessarily as frequent outside it. In these situations, 0.5 is indeed the probability threshold above which presence is more likely than absence within the studied sample but does not necessarily correspond to the environment threshold (dependent on the predictor variables) above which presence is more likely than expected at random (i.e., than expected considering the presence/absence ratio in the sample).

I also apply Akaike's Information Criterion (AIC) as a method of model selection. AIC is an asymptotically efficient model selection criterion which is quite suitable for predictions. It is designed by using the number of fitted parameters, including the intercept, in the model (k), and the maximum likelihood estimate for the model (L). In the case of least-squares regression analyses, the value of k must be increased by 1 to reflect the variance approximations as an extra model parameter. Basically, the model that minimizes AIC should be preferred.²⁸⁷

²⁸⁴ Al-Ahmadi/Al-Ahmadi/Al-Amri (2013)

²⁸⁵ Seoane/Bustamente (2001)

²⁸⁶ Real/Barbosa/Vargas (2006)

²⁸⁷ Symonds/Moussalli (2011)

$$AIC = -2 \ln(L) + 2k \quad (4)$$

To evaluate the overall performance of the selected model, I also look at the null deviance and the residual deviance. The null deviance shows how well the dependent variable is predicted by a model that includes only the intercept, while the residual deviance pursues the same objective including the predictors. In addition to that, all possible interaction terms have been tested to assess their impact on the dependent variable and to identify the interaction terms with the highest predictive value.

Based on specific criteria, I apply five different models to analyze the robustness of the results. The models have been selected based on varying factors such as theoretical relevance, lowest AIC and residual deviance values and high pseudo-R² values. While the first two models demonstrate the lowest AIC values out of 127 theoretically possible models, the third and fourth models were considered based on the theoretical relevance of its structure considering the research questions. The fourth model comprises all initially defined independent variables excluding the ones which had to be removed due to high multicollinearity. The fifth model builds on the fourth model complemented by selected interaction terms which from a theoretical point of view might have a considerable impact on the variance explanation.

4.4 Results

The correlation matrix in table 2 shows that the independent variables “EBIT”, “Net Sales”, “Net Income”, “Total Assets” and “EBITDA” are highly correlated with each other.

Table 2: Pearson's correlation matrix

Variable	1	2	3	4	5	6	7	8	9	10	11
1 Transaction											
2 Age	.23										
3 Gender	.11	.23									
4 Tenure	.38	.33	.11								
5 Relatedness	-.06	-.07	.08	-.07							
6 Net Sales	.33	.08	.10	.11	.16						
7 EBIT	.53	.06	.05	.08	.11	.67					
8 Net Income	.62	.26	.04	.32	.00	.51	.83				
9 Total Assets	.57	.20	.07	.24	.08	.83	.87	.85			
10 EBITDA	.54	.10	.06	.13	.13	.77	.97	.81	.94		
11 ROA	.13	.11	-.03	.13	.00	.05	.17	.24	.11	.15	

Due to the high multicollinearity resulting from the usage of all the variables, some variables had to be removed. 'EBIT' is selected as a representative for the other four highly correlated variables that have been removed. 'EBIT' is an important measure of a company's profitability that measures the profit of a company earnings from its operations. EBIT focuses primarily on the company's ability to earn from its operations. Table 2 also demonstrates that the variables "Transaction Value", "Age", "Gender", "Tenure", "Relatedness", "EBIT" and "ROA" are not strongly correlated with each other. Hence, the given set of variables basically can be used for a logistic regression.

Table 3 shows that none of the variables that were omitted as a result of being highly correlated with the other variables has a significant association with the dependent variable "Turnover". All omitted variables have been individually checked with "Turnover". Therefore, it can be concluded that there is no omitted variable bias as a result of the omission of the variables stated above. However, other variables might exist that were not used for the study, either due to lack of measurability or ease of data attainment, which could also affect the dependent variable considered.

Table 3: Logistic regression of each omitted variable and 'Turnover'

	P-value
Net Sales	.176
Net Income	.635
Total Assets	.339
EBITDA	.242

Table 5 shows the results of the logistic regression of the independent variables with the dependent variable. Testing certain independent variables and interaction terms with the dependent variable in different models allows to check for the robustness of the results. The first model including the independent variables 'EBIT' and 'ROA' shows the lowest AIC out of 127 theoretically possible models. The second selected model composed of 'EBIT', 'ROA' and 'Age' as independent variables represents the model with second lowest AIC value. The third model with the independent variables 'EBIT', 'ROA', 'Age' and 'Relatedness' as well as the fourth model including the independent variables 'EBIT', 'ROA', 'Age', 'Relatedness', 'Transaction Value', 'Gender' and 'Tenure' offer the strongest theoretical relevance to the key objectives of the study. The fifth model that builds on the fourth model has been complemented by the interaction terms 'ROA x EBIT' and 'ROA x Relatedness' in order to test certain aspects of the independent variable 'ROA' based on the results of the first four models. The interaction term 'ROA x EBIT' was selected to understand the significance effect of the variable 'ROA' on 'Turnover' when dependent on 'EBIT'. As these two variables are the only financial key performance indicators left in the model, the interaction term between them provides a basis for measuring the significance of the interconnectedness between an asset driven indicator such as ROA and profitability driven indicator such as EBIT. Similarly, 'ROA x Relatedness' was chosen to analyze the impact of the relatedness of the firms on the significance of 'ROA' on 'Turnover'. This interaction term will be able to test the idea that if the acquirer is placed in the same market environment ("related") as a potential company for acquisition, there will be a greater incentive for CEO turnover at the acquired company if it has a lower ROA. This is mainly driven by the existing industry knowledge and closely developed relationships with stakeholders in the same market. Additionally, the usage of these two interaction terms improved the accuracy of the model by comparatively high margin. The models have a Nagelkerke R² within the range of .145 and .261, with model 5 being the highest. As per this, the explained variation in the dependent variable, Turnover, by the independent variables is

26.1% for model 5. Also, all the models used in Table 4.5 do not show an issue with multicollinearity based on the Variance Inflation Factor (VIF).

The Variance Inflation Factor has been calculated to measure the multicollinearity of the five regression models (see table 4). If the Variance Inflation Factor is in between 1 and 10, there is no multicollinearity. However, if the Variance Inflation Factor is below 1 and greater than 10, there is multicollinearity. For all the regression models used, all the independent variables show a Variance Inflation Factor greater than 1 and less than 10.

Table 4: Variance Inflation Factor (VIF)

	Model 1	Model 2	Model 3	Model 4	Model 5
EBIT	1.028	1.030	1.044	1.503	9.876
ROA	1.028	1.039	1.039	1.049	1.584
Age		1.015	1.021	1.197	1.241
Relatedness			1.019	1.047	1.152
Transaction Value				1.721	1.722
Gender				1.073	1.073
Tenure				1.302	1.346
ROA x EBIT					9.392
ROA x Relatedness					1.587

Table 5: Logistic regression results for predicting the probability of CEO turnover after M&A transactions and pseudo R² values for each model

	Model 1				Model 2				Model 3				Model 4				Model 5			
	β	S.E.	P-value	Exp(β)	β	S.E.	P-value	Exp(β)	β	S.E.	P-value	Exp(β)	β	S.E.	P-value	Exp(β)	β	S.E.	P-value	Exp(β)
EBIT	.000	.000	.111	1.000	.000	.000	.110	1.000	.000	.000	.126	1.000	.000	.000	.271	1.000	.001	.001	.091*	1.001
ROA	-12.288	4.195	.003***	.000	-12.623	4.206	.003***	.000	-13.043	4.316	.003***	.000	-13.304	4.482	.003***	.000	-9.447	4.320	.029**	.000
Age					.035	.029	.222	1.036	.038	.029	.186	1.039	.039	.032	.217	1.040	.038	.033	.247	1.039
Relatedness									-.448	.448	.318	.639	-.470	.462	.309	1.600	-.280	.512	.584	.756
Transaction Value													.000	.000	.543	1.000	.000	.000	.384	1.000
Gender													-.576	.870	.508	.562	-.334	.894	.708	1.397
Tenure													-.003	.003	.345	.997	-.002	.004	.655	.998
ROA x EBIT																	-.012	.009	.145	.988
ROA x Relatedness																	-25.780	12.752	.043**	.000
-2 Log likelihood				144.132				142.598				141.578				139.708				132.320
Cox & Snell R ²				.108				.119				.127				.141				.194
Nagelkerke R ²				.145				.161				.171				.190				.261
AIC				149.60				150.04				150.99				155.51				158.29
Null Deviance				157.34				157.34				157.34				157.34				157.34
Residual Deviance				143.60				142.04				140.99				139.51				138.14

* p < 0.10; ** p < 0.05, *** p < 0.01

Table 5 shows that the variable “ROA” (Return on Assets) has a statistically significant ($p < 0.05$) negative impact on the turnover probability meaning that the likelihood of a CEO turnover rises strongly with a decreasing Return on Assets. This result can also be found in the other models with differing independent variables along with “ROA”. The interaction term between “ROA” and “Relatedness” is also found to be significant ($p < 0.05$). Given that the acquirer and target company are related, the chances of CEO turnover further increase with reducing Return on Assets. This is because, the acquisition of a poorly performing company within the same industry and under similar market dynamics, often incentivises the acquirer to replace the structure and practices of the incumbent CEO of the target company with internally developed expertise or using other trusted partners from the industry. Although the other independent variables are not statistically significant, table 5 shows that the variable “Age” has a positive and the variables “Tenure” and “Gender” have a negative impact on the turnover likelihood. I see a tendency that the probability of a CEO turnover rises with an increasing age, while the turnover projection declines with an increasing tenure of the respective incumbent CEO’s and particularly female CEO’s. The negative value associated with “Relatedness” indicates that moving “Relatedness” from 0 (related) to 1 (unrelated), the chances of CEO turnover decreases. Therefore, having a relation with the target company has a positive impact on the chances of CEO turnover. Furthermore, the results in table 5 show that the variables “Transaction Value” and “EBIT” do not have any influence on the turnover probability at all.

4.5 Discussion

The applied logistic regression model has shown that ‘Return on Assets’ (ROA) has a significant impact on the decision of CEO’s to leave the company. In this context, a unit decrease in ROA increases the probability of CEO turnover, which confirms the forth formulated hypothesis. Lower firm performance increases the risk of turnover.²⁸⁸ ROA is an essential ratio that measures the profitability of a company in relation to its assets. It indicates how well a company is performing by comparing the profit it’s generating to the capital it’s invested in assets. The higher the return, the more productive and efficient management is in utilizing economic resources. Several previous studies have found a positive link between the

²⁸⁸ HomRoy (2015)

degree of satisfaction and the financial performance of companies.²⁸⁹ To sum up, you can say that a decreasing ROA points to a worse financial performance of a company which in turn impacts the satisfaction about the CEO and increases the decision of voluntary or forced turnover.

The remaining three hypotheses could not be confirmed. The CEO turnover probability could not be predicted as desired through the other selected independent variables. Different explanation attempts can be considered for the low significance of the results. One of the explanations can be traced to the lack of other independent variables, difficult to measure, that affect the dependent variable. It might be possible that other relevant variables were not collected for the study, which can better predict the turnover probability of incumbent CEO's in the target companies. On the current data base however, at least 26.1% of the variability of the data could be explained.

On the other hand, the results show that especially the variables "Transaction Value" and "EBIT" do not have any influence on the CEO turnover probability. "EBIT", although significant at a lower significance level in model 5, has a very low coefficient. This can be probably traced back to the fact that the transaction value and EBIT do not provide any insights about decisive factors such as the satisfaction of the incumbent CEO and the financial situation of the target measured in relation to relevant metrics at the time of the transaction. Interestingly, this is slightly different to the impact that Return on Assets (ROA) have on the likelihood of CEO turnover. A possible explanation for this is that while EBIT is a pure financial metric, the ROA, being influenced by the total assets possessed by a firm, is an indicator of the efficiency of the management of the firm with regard to utilizing its assets to generate earnings.

Beyond this, the results show that the variables "Relatedness" and "Age" have a non-significant, but positive impact on the turnover of incumbent CEO's. The turnover probability slightly rises with an increasing age of the CEO's and related target companies. A variety of different reasons and factors can be applied for this purpose. First, it should be considered that in some cases external factors do not play a role, but rather an age-related and, due to illness respectively separation from the company (e.g. retirement or malicious disease) can be ensued. Furthermore, the degree of relatedness between the acquiring and target companies can result in a conflict since the CEO's skill set will be more likely redundant with skills already available

²⁸⁹ Edmans (2011)

within the acquiring company.²⁹⁰ In this context, CEO turnover can be also used as a promotor of acquisition integration. Acquiring company may encourage CEO succession as an integrative instrument to introduce its values, strategic priorities and operational procedures into the acquired company.²⁹¹

On the other hand, the turnover likelihood somewhat shrinks with an increasing tenure of the incumbent CEO's. A positive perception and well-pleasing in the company as well as success rates can be potential explanations for the observations made.

Beyond that, the results indicate that a female gender decreases the probability of CEO turnover. However, the massive gender imbalance in the sample (107 men vs. 9 women) must be considered showing significant sample limitations.

In addition to that, there is a range of other factors from the view of incumbent CEO's and the acquiring companies which might have a relevant impact on the turnover. In the following, some of these factors will be discussed. The maximum possible retention of existing management structures is associated with significant advantages since these know the characteristics of their companies through their longstanding experience and they can ensure a gradual confluence of company cultures, structures and processes. Familiar CEO's have significant advantages over external candidates as these know the potentials of the acquired company, its strengths and weaknesses better and at the same time they represent a familiar and known person for the employees, which in turn can increase the sense of security of employees and customers. In addition to that, mergers and acquisitions provide an opportunity for CEO's to demonstrate their competencies, strengths and potentials as executive board member to bring acquired companies through the tedious and conflictual phases of the transaction and to enable a successful merger or acquisition. No small number of companies fail because of an unsuccessful transaction. Furthermore, the affected companies in the sample have shown that in most cases you can proceed from peaceful merger and acquisition transactions where the acquired companies do not have to fear the authority of external CEO's by following their targets and instructions. Possibly, the retention of existing CEO's ensures a peaceful merger and acquisition transaction where the acquired company does not have to fully surrender its company culture, familiar processes and procedures, and to orientate itself completely new.

²⁹⁰ Cooper/Finkelstein (2013)

²⁹¹ Lee/Alexander (1998)

A further aspect which can have an impact on the turnover rate of CEO's in the transportation and logistics sector is the aspiration for certainty, stability and the avoidance of any disturbance to not upset customers as well as to enable the retention of long-standing customer contracts. The conscious retention of the incumbent CEO of ACR Logistics within the acquisition by Kuehne+Nagel in 2005 e.g. happened for these very reasons. A CEO shift can lead to turmoil as well as uncertainties and it can threaten the trust of customers, which in turn would be linked with high financial losses. In addition to that, the retention of an existing customer base is extremely important since the setup of new customer relationships is incident to a laborious, costly as well as long-lasting process. The CEO turnover in other industries like the information technology and financial sector might be more non-durable due to the dynamic and shorter product life cycles of its products and services forcing incumbent CEO's for continuous product innovations and good financial performance to meet increasing customer as well as shareholder expectations. In 2018, Deutsche Bank e.g. replaced the incumbent CEO John Cryan due to a weakening of its brand in its home market and a poor financial performance with three consecutive years of losses.

Beyond that also the potentials of a CEO must be considered, who possesses important company-specific knowledge by the respective activity. In the case of a CEO shift, the new CEO first would have to build the specific company knowledge laboriously and deal with the specifics and characteristics of the company, which on the one hand is quite time-consuming and on the other hand cost-intensive. Therefore, existing CEO's are preferred in the event of positive company developments.

Further influencing factors could be traced back to the personal dissatisfaction of CEO's (e.g. unattractive payment, dissatisfaction with the changed tasks and areas of responsibility and not satisfactory financials over a specific period with an unpromising outlook). In this case, the probability is quite high that a CEO tends to a professional reorientation and development (e.g. takeover of a new CEO role at a competitor, look-out for professional development and challenge).

In addition to that, formerly family-owned companies, which have been acquired, must be considered separately. In most cases, the former CEO withdrew after the respective merger and acquisition transaction and took over other functions in the company (e.g. advisory function).

4.6. Conclusion

The findings of the examination demonstrate that the process of a merger or acquisition outlines a complex process, whereby different aspects influence the probability of success of a merger, thus have to be considered such as the company size, various company cultures, varying business objectives, the characteristics of different customer bases, the attributes and features of employees, the traits of the company, the financial situation and stability, respectively of the company as well as characteristics and concerns of the management.

Especially the retention of successful CEO's, who are familiar with the features and characteristics of the acquired company, represents an important factor to carry a company and its employees through the integration phase.

Due to the fact that the retention of successful CEO's is quite important, companies should involve existing CEO's actively into the merger and acquisition process before an upcoming merger by considering their concerns, worries and recommendations, gathering information about the characteristics of the company and employees and indicating the importance of the retention of customer bases, whereby the probability of stay and the satisfaction of CEO's can be increased, which in turn leads to a higher sense of security on employees and customers. One important aspect in this context is an open communication about existing concerns and topics of conflict. Problematic issues should not be concealed, but rather talked out openly, whereas CEO's ought to be integrated in these processes. In addition to that, an external imposition of new business objectives and cultures is not advisable, but rather an integrative process under consideration of recommendations of former CEO's and a jointly elaboration of new company and merger objectives, whereby the intrinsic motivation of CEO's and the probability of success of a merger as well as the probability of the retention of existing CEO's can be increased.

5 Summary and Outlook

5.1 Conclusion

A comprehensive literature review in Section 2 highlights that well-structured strategic backgrounds of M&A transactions in an overall context, the M&A process as an item of the M&A management as well as the general management of M&A projects are critical factors for the success of M&A transactions. According to that, M&A competency in general demonstrates an essential success factor within the management of M&A projects. In this context, the structure of an internal M&A department does provide the best opportunity to build M&A specific knowledge and to keep within the company. Lastly, aspects such as clear strategic M&A intentions, the ideal set up and procedure of an M&A transaction and the composition of teams for the management of M&A transactions have a crucial impact on the success of M&A transactions. These aspects, particularly present in the pre-M&A stage, build the foundation stone for planned M&A intentions.

The European and Chinese case studies conducted in Section 3 demonstrate that there is no single approach to promise a successful M&A transaction. All analyzed transactions have shown that the success of M&A transactions depend on individual factors. Moreover, there is no explicit method to quantify the potential of synergies linked with M&A transactions. However, the case studies have also shown a couple of generally valid success factors for mergers and acquisitions. Thus, acquiring companies should allow a certain autonomy for acquired companies to increase the support willingness of the target. It is typically crucial to establish a knowledgeable team with deep M&A expertise who is able to set up a structured and at the same time target-oriented M&A process. M&A intentions cannot only be passed on to the leading core M&A team, but rather requires the continuous support of the top management. Executives have an essential role model function towards the workforce of the company who should drive a proactive communication style.

In the environment of mergers and acquisitions, the top management of acquiring and target companies requires a highly structured transaction approach to out the odds in their favor. Both parties involved have to apply an overarching approach to identify all thinkable areas of improvement. Rather than simply integrating the target company to capture the most evident synergies, a full-potential method creates improvements to the target company, captures all synergies, and exploits on the opportunity to make required upgrades to the acquirer as well.

Acquiring companies need a clear reasoning for how the merger or acquisition will generate value by taking an organized, holistic approach. Here, buying companies can fund the transaction by causing quick wins that provide cash to the bottom line rapidly, characteristically restructuring back-end processes to decrease costs and increase efficiency. In addition to that, acquiring firms can pivot from cost-cutting to growth measures in order to win the medium term by revamping the portfolio, selling off some business segments and assets and purchasing others that bring into line with their strategic direction.

Successful acquirers should execute their plan with rigor and speed. These plans ideally begin developing plans long before deals close, so that they can begin implementation on day one, seamlessly combining the core elements of post-merger integration and a turnaround program. These acquirers are extremely diligent in building clear milestones and objectives into the plan to ensure that key integration and improvement steps are achieved on time. Winning acquirers address culture upfront by reorienting the organization around collaboration, accountability, and bottom-line value. Culture can often be hard to pin down, but it's critical in shaping a company's performance following an acquisition.

This thesis also contributed towards understanding how selected financial and non-financial factors impact the turnover probability of incumbent CEO's in transportation and logistics industry related mergers and acquisitions at the time of the transaction specifically. Interestingly, in particular financial ratios such as 'Return on Assets' (might) have a significant influence on the decision of a CEO to leave the target company, while non-financial factors show a rather non-significant impact. This fact can be attributed to the increasing pressure from the shareholder value perspective. Today, increasing the shareholder value is usually of prime importance for the management of a company. In that regard, the management considers the interests of shareholders while making decisions. The rule of thumb is the higher the shareholder value, the better it is for the company and management. For this to happen, executives have to exercise efficient decision-making so as to earn and increase profits, thereby increasing shareholder value. On the other hand, faulty decision-making might damage shareholder value. Right here is the enhanced risk of M&A transactions.

However, independent from the financial performance of the company, the retention of incumbent CEO's, who are familiar with the features and characteristics of the company might represent an important factor to carry a company and its employees through a M&A process.

5.2 Future research

As with any research, this dissertation also has its own limitations which forms the basis for future research.

When studying specific M&A cases to better understand the most influential success factors, this dissertation is limited by the number of cases it considers. Future research can look at more such cases in order to build on the major findings of the present dissertation on this topic. Also, the dissertation considers M&A cases from Europe and China. This limits the usability of the study in understanding such transactions happening in other countries, as cultural effects may also play a role in the success of an M&A transaction. For example, the factors influencing a transaction between European and Chinese stakeholders may not represent that between American and European stakeholders. Additional research will need to be done in order to offer a more generic understanding of the topic. Furthermore, interviews were used to analyze the M&A processes. Interviews can lead to incomplete transfer of knowledge and hence affect the outcomes of certain cases. While this is an issue with any case study, usage of a substantial number of cases can negate this. Also, the perspectives gained from being an insider during M&A transactions is different from an outsider point of view. Future research conducted by insiders within a firm undergoing an M&A transaction can further provide new insights into the topic.

The study on the possibility of CEO turnover at the time of M&A transactions is limited by the sample size used. This is due to the manual nature of the data collection process and the lack of a central database recording, especially, qualitative aspects behind an M&A transaction. This also leads to the issue of missing variables that are either hard to assess or difficult to measure. For example, the ego of a CEO cannot be measured but might play an important role in his/her decision to leave a company. A result of this are the comparatively lower levels of accuracy of the models which can be subsequently improved by additional research that can incorporate more variables with a larger sample size.

This dissertation adds to the existing literature on M&A transactions, especially within the transportation and logistics industry, and stands as a base of future research in the field.

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Declaration

Last Name: **Alparslan** First Name: **Vefa**

Affirmation – Statutory Declaration
According to § 10 part 1 no. 6 of the Doctoral Program Regulations
(dated 5th March 2008 as amended on the 8th March 2012)

I hereby declare, that the

Dissertation

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Further persons have not been involved in the preparation of the presented dissertation as regards contents or in substance. In particular, I have not drawn on the non-gratuitous help of placement or advisory services (doctoral counsels / PhD advisors or other persons). Nobody has received direct or indirect monetary benefits for services that are in connection with the contents of the presented dissertation.

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Vallendar, April, 2019

Vefa Alparslan

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