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Develop a framework to identify risks and synergies within the execution of an operations due diligence in the groupage segment of the road logistics market

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## **Abstract**

Efficient global transport and logistics services are important enablers for global trade. In the wake of increasing global trade dynamic, global logistics service providers have emerged. Nevertheless, a low degree of concentration in the logistics supplier market can still be observed. There is the expectation that the recently started concentration-process will continue or even accelerate in the future.

One element of this process is mergers and acquisitions among logistics companies. The due diligence, which is the analysis of the target's business by the acquirer, is an important element of a merger and acquisition project.

This thesis presents a framework for the execution of an operations due diligence in the groupage segment of the road logistics market. The framework has to be seen complementary to due diligence procedures in other areas like finance, legal or human resources. Its results have to be combined with the findings of these areas to get an overall picture of the target-company.

The framework consists of a set of guidelines to identify risks and synergies of a merge of operations and a simulation-approach to quantify cost-effects.

The framework has been developed based on a combination of literature research in the area of due diligence & road-logistics operations and interviews with experts in these areas. The thesis recommends a mixed approach of qualitative questions concerning the strategic fit, standard procedures to get an understanding of the business & operational capabilities of the target-company and a simulation approach to quantify the impacts of merging the transport operations.

It is concluded that the application of the framework can increase the understanding of the prospect acquisition. It helps to analyze the strategic & operational aspects and introduces a procedure how to quantify the financial impacts. The application reduces a deal's risk and helps to avoid wrong investment-decisions.

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# 1. Introduction

A number of Mergers and Acquisitions (M&A) in the logistic-sector has been observed in the last years and a continuation of this trend is anticipated. The sound execution of the due diligence is an important element of an M&A-project.

An initial research has shown that there is only limited literature available which deals with the questions arising when analyzing the operational fit of two transportation networks during a due diligence project. The thesis addresses this issue by developing a framework to identify synergies and risks within the execution of an operational due diligence in the groupage segment of the road logistics market.

The first part of this chapter gives an overview of the business-framework and introduces briefly the aspects of due diligence within an acquisition-project. In the second part, the research-problem is outlined and the thesis aim is formulated. Furthermore the objectives and related deliverables are stated and the methodology to achieve these objectives is presented.

## 1.1. The business framework

### 1.1.1. The European 3rd party logistics sector

The European 3rd party logistics (3PL) providers render services in

- Sea-Logistics
- Air-Logistics
- Road-Logistics
- Rail-Logistics
- Warehousing
- Contract-Logistics.

The *“top 10 European players increased their turnover from 76.9 bn EUR to 97.5 bn EUR between 2001 and 2004”* (Jung, 2006, p.17). An important element of this development has been growth by acquisitions.

Table 1 shows selected acquisitions in the logistics industry.

Year	Acquirer	Target	Enterprise Value (€m)
2002	Deutsche Bahn	Stinnes Logistics(Schenker)	3'644
2002	Thiel Logistics	Microlog	165
2004	Exel	Tibbet & Britten	577
2005	PWC Logistics	Geologistics	374
2005	DPWN	Exel	6'040
2005	Deutsche Bahn	BAX Logistics	1'130
2005	Kuehne + Nagel	ACR	490
2005	DSV	Frans Maas	433
2007	GND	Salvesen	630

(UBS Investment Bank, 2007)

**Table 1 - Selected acquisitions in the logistics industry**

### 1.1.2. The Road-Logistics market

A concentration process has happened in the road-logistics market as well, but the market in total is still fragmented since the top 10-players account only for approximately 10 % of the total business (Klaus, 2007).

The road-logistics market can be segmented as shown in Figure 1.

	Parcel / Express up to 30 kg	Groupage up to 2.500 kg	LTL/FTL up to full truck load
Dedicated * One to Few	e.g. overnight spare-part-delivery	e.g. supply of retail stores form a central warehouse	e.g. private freight traffic between production sites
Multiuser * Many to Many	UPS / FedEx / DHL Royal Mail	Schenker, DHL, DSV	LKW Walter, Willi Betz, Waberer's
* While the type of operation is explained in the dedicated-segment the author found it more useful to name company-names in the multiuser-segment.			

**Figure 1 - Segmentation of the Road-Logistic-Market**

The degree of market-concentration is different in each segment. In segments where production is very much systemized and fixed cost-driven, a higher concentration can be observed. For example the top 10 players in the European multi user groupage market account already for approximately 30 % of the turnover. The concentration of business in domestic multi user groupage

networks with the top 10 players reaches in some markets already more than 60%, for example Spain with 66 % and Germany with 71 % (Klaus, 2007).

The following processes are executed in a groupage network to produce a transport service for a customer:

- Pickup of shipment at the shipper's site on a multi-stop tour
- Cross-docking/Sorting of shipments at the outbound-depot
- Transport multiple shipments to the inbound-depot
- Cross-docking/Sorting of shipments at the inbound-depot
- Delivery of shipments to the consignee's site on a multi-stop tour

The groupage service does not include storage, picking, repacking or any other manipulation of the cargo; it is a pure transport service on behalf of customers.

Since the fall of customs boundaries within the EU, it can be assumed that there are no more significant differences between cross-border and domestic transports. Special business-processes can still be observed in transports crossing EU-borders, where for example customs regulations prompt a certain handling which does not allow transportation in a systemized transportation network.

Characteristics of groupage-networks are very similar to the Express/Parcel segment. Both offer a standardized transport service, have a highly systemized production and are fixed cost driven. The degree of consolidation in the European Express/Parcel segment has already reached 82% (Klaus, 2007). Based on the assumption that the similarity of the business characteristics will prompt a development towards a comparable degree of concentration, further M&A-projects are expected in the groupage segment of the road-logistics market.

### **1.1.3. Example for a Road-Logistics Strategy**

An example that more M&A-projects have to be expected is the strategy of the Switzerland-based company Kuehne + Nagel (KN). KN is with its 53'000 employees, presence in more than 100 countries and a turnover of 21 bn CHF