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Reprint of "The impact of mergers and acquisitions on shareholders' wealth in the logistics service industry"☆

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A R T I C L E I N F O

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A B S T R A C T

Logistic service providers are facing significant challenges in recent years due to intensified competition and ever-increasing customer expectations for cohesive high-standard services at low cost. To cope with these developments many companies aim for external growth to realize operational efficiencies and exploit productive opportunities of new markets and diversified services. Accordingly, 2015 has even become the most active year for mergers and acquisitions in logistic service industry. However, studies examining the post-merger performance effect and its determinants are scarce. Consequently, this paper takes up this issue by analysing a sample of 826 transaction announcements taken place between 1996 and 2015 and their performance effect in terms of short- and long-term abnormal shareholder returns. The results reveal, that although overall transactions exhibit significant positive abnormal returns, post-merger performance for the acquiring companies differs considerably according to the logistic services offered. In the short-term trucking, railway, 3PL and air cargo companies experience significant positive abnormal returns of about 0.6%–2.6%, while sea freight carriers realize only marginal effects and CEP companies do even not show any significant reaction. In the long-term, railway and 3PL companies realize a significant abnormal return of about 20%–24%, while trucking, sea freight and air cargo carriers do not exhibit significant returns and CEP companies do even experience significant losses of about −17%. Overall, diversifying transactions of established full-service providers outperform focus-increasing transactions of specialized operators.

1. Introduction

In the last decades, the demand for logistic services has increased considerably due to the ongoing transformation of manufacturing involving its global dispersion and fragmentation. As a result, the logistics industry has undergone significant changes in accordance to the market developments towards more cohesive and global services. Simultaneously, freight rates, especially in shipping, were declining continuously since almost a decade wherefore logistics service providers (LSPs) find themselves in a situation in which costumers are expecting high-standard services at a low cost (Meidutė-Kavaliauskienė et al., 2014). This situation has even worsened with the emergence of the financial crisis and its impact on the world economy. Particularly, logistics service providers in asset-intensive businesses were affected by fierce competition following the decline in international trade. In 2009, for example, Hapag-Lloyd had to be provided with a loan guarantee of up to $1.75 billion from the German government to stay afloat. In fact, all of the world's major shipping companies were struggling during the crisis period and experienced significant losses (e.g. Maersk incurred a loss of $2.09 billion in 2009). Similarly, in 2008 and 2009 the airline industry was incurring losses of $26.1 billion and $4.6 billion mainly due to the drop in freight cargo (IATA, 2016). Even in the years after the crisis, logistics service providers were facing a high competitive pressure due to the constantly low growth rates of world trade (Deutsche Bank, 2016). Besides, the accelerating pace of digitization, will also create new challenges for the logistics service industry due to changing customer

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expectations and the emergence of new competitors (PWC, 2016). Start-ups, like e.g. Matternet,[1] Veritread[2] or Postmates,[3] and even former customers (e.g. Görtz Retail GmbH or JA Apparel Corporation) already entered the market and intensified competition. Therefore, logistics service providers are required to develop concepts that take up these challenges. It seems obvious that, in the market with estimated revenues of approximately $4.6 trillion, even well-established companies have to go through a transformation process to claim their position (PWC, 2016).

Beside internal changes and organic growth to cope with the outlined challenges, mergers and acquisitions (M&A) are important vehicles influencing firms' business, product and geographic strategy (Ferreira et al., 2014). Indeed, 2015 has become one of the most active years for M&A in the logistics service industry with a total deal value of approximately $178 billion (PWC, 2015). The majority of acquisitions made were of horizontal nature and served expansion purposes in terms of geography and market positioning (cf. PWC, 2010 and see, for example, BBA Aviation PLC's acquisition of Landmark Aviation or XPO Logistics Inc.'s acquisition of Norbert Dentressangle SA). However, M&A increasingly serve the need to expand intermodal capabilities or services provided (Carbone and Stone, 2005) as e.g. XPO's $335 million acquisition of Pacer in early 2014 (PWC, 2015) or UPS's $1.8 billion acquisition of Coyote Logistics, a high-tech and asset-light start-up (KPMG, 2016). Aimed at covering entire value chains by positioning as integrated logistic providers offering customized capabilities across the spectrum of logistics services and serving customers all over the globe, M&A have become an increasingly attractive option for logistic companies to pursue growth and thus represent an integral part of their corporate strategy nowadays (Hertz and Alfredsson, 2003; Carbone and Stone, 2005).

Nevertheless, successful M&A activities are challenging and impose significant financial and operational risks (King et al., 2004). Previous research revealed that many M&A transactions reduce shareholders' wealth and miss the intended strategic objectives (Meyer, 2001). Moreover, the post-merger performance seems highly dependent on the corresponding industry (Campa and Hernando, 2004). The impact of M&A in the logistics service industry in terms of stock market reaction after the announcement and post-merger performance however, has, with the exception of Darkow et al. (2008) for the period 1991–2006 and Andreou et al. (2012) for the U.S. market that both focus on short-term effects, not been considered so far. Consequently, the paper at hand takes up this issue by analysing a sample of 826 transaction announcements taken place between 1996 and 2015 and their performance effect in terms of short- and long-term abnormal shareholder returns to identify the conditions for successful M&A in the logistics service industry. This is done in two steps by examining the short-term announcement effects on shareholders' wealth using cumulative abnormal returns (CAR) and by investigating the long-term stock performance of the newly formed enterprise during the integration period using buy-and-hold abnormal returns (BHAR). This paper offers several contributions for researchers as well as managers. Firstly, this is the first study to explore M&A in the global logistics service industry which enables comparisons across different regions and services offered. Secondly, apart from frequently considered announcement effects, we also reveal that there are significant long-term effects during and after the integration period. Finally, we provide a discussion of the boundary conditions for improving shareholders' wealth using regression analysis.

The remainder of this paper is organized as follows. Section 2 provides a structured overview of related studies on the post-merger performance in general and in the logistics industry before developing the research hypothesis for the following analysis. Section 3 outlines the methodology including a description of the data sources, the data selection process and the empirical models. The findings of the short-term and long-term event studies are presented in Section 4 that also includes the results of cross-sectional regression analyses aimed at identifying most influential factors of post-merger performance. Finally, Section 5 concludes the paper by summarizing the results and discussing implications for managers and researchers.

2. Literature review and hypothesis development

2.1. Logistics literature on mergers and acquisitions

In the logistics service industry, M&A activity has seen a persistent growth over the past years (cf. Fig. 1) that is likely to continue given the increasing demand for efficient and specialized services. Due to the ongoing transformation of manufacturing involving its global dispersion and fragmentation, the strategic challenge of designing global value networks has become predominantly an inter-firm activity (Brennan et al., 2015). This also requires logistic services capable to integrate complex networks with global flows of goods and information (cf. Christopher, 2016). As has been shown, interventions impeding international trade and thus hindering integrated logistics services seem to exhibit significant negative valuation effects for the affected companies (Tielmann and Schiereck, 2017). Besides its ever-increasing practical importance, only few industry-specific M&A studies aimed at shedding light on transaction rationales and performance implications for the involved logistic companies (cf. Table 1).

Although the motives for M&A are rather diverse, several categories of transaction rationales have been discussed in literature ranging from value creation and managerial self-interest to firm characteristics and environmental factors (see Trautwein, 1990; Seth et al., 2002; Haleblian et al., 2009). Most studies, however, refer to value creation motives and assume that involved companies do either expect to benefit from synergistic gains by realizing operational efficiencies and exploiting productive opportunities of new markets and products which will induce gains for shareholders of acquiring and target companies (cf. Berkovitch and Narayanan, 1993; Seth et al., 2002) or aim at limiting competition by increasing market power and facilitate collusion which is again expected to be beneficial for both shareholders (cf. Trautwein, 1990 or Haleblian et al., 2009). Besides value creation, several studies have examined managerial motives involved and emphasize opportunistic behaviour of the management aimed at compensation and risk reduction or exaggerated self-confidence of managers and overestimation of target values. Both, opportunism and overconfidence, is assumed to induce falling shareholder values for the acquirer, rising shareholder values for the target and zero total gains (see Seth et al., 2002).

Beginning in the early 1980s and mostly driven by geographical or service expansion, M&A activity swept across the international logistics service industry including all types of transport operators (Ojala, 1993). Liberalization of trade and deregulation of the transport markets has fuelled the geographical expansion of multinational logistics service providers. Combined with the rise of numerous new competitors from emerging countries after several waves of privatization, this led to fierce competition in the logistics industry and consolidation trends in emerging countries (PWC, 2010). In the light of this, M&A motives for leading multinational logistics service providers targeting local providers in emerging countries are seen in expected profits from improved geographical coverage as well as establishing domestic operations in fast-growing markets. Financially-better equipped logistics service providers from emerging countries, in contrast, rather aim for economies of scale in the strongly fragmented domestic market (PWC, 2010). Studies from the European logistics market moreover reveal that the degree of sectoral concentration in the logistics industry is not affected by M&A (cf. Hofmann and Bachmann, 2010), wherefore market power and collusion

[1] Matternet is a transportation system made up of Unmanned Aerial Vehicles (UAVs), landing stations and routing software. For further information, see www.matternet.us.

[2] Veritread is a heavy haul marketplace where shippers can connect with and get bids from trusted carriers. For further information, see www.veritread.com.

[3] Postmates offers an Urban Logistics platform that connects customers with local couriers who can deliver from any store or restaurant on-demand. For further information, see www.postmates.com.