

## Abstract

A representative survey was carried out among 56 Hungarian logistics service providers in the summer of 2013. The empirical primary survey included 56 questions to be asked from the top managers of Hungarian logistics service providers. The responses can be used to draw conclusions relevant to the whole Hungarian 3PL sector. The SPSS analysis of the responses led to the results summarized in the article.

## Keywords

logistics · Hungarian logistics service providers · competitiveness · key success factors

## 1 Introduction

The re-establishment and growth of production and the services coupled to them may be one of the way out of the crisis of 2008. The manufacturing and service companies “are not only delivering but also spurring growth” (Borkowski, Stasiak-Betlejewska and Torok, 2013; Chikán, 2013b). Moreover, in the after crisis market economy, the development of logistics will be the main force behind international trade development (WEF, 2013). Increasing logistics’ contribution to GDP is a key priority of Hungary’s economic policies (MTI, 2013). This room for development is highlighted by the fact that the share of logistics in the national economy is 6%, whereas logistics accounts for 10-12% of the GDP in the developed countries (IFKA, 2013). Referring to the thoughts introduced above and the consequences of the relevant intentions, examining the scientific field of logistics – a service capable of value creation and influencing competitiveness significantly – , and within that, understanding and analysing the activities of logistics providers has become even more pending than before (Nuzzoloa et. al., 2013). To reach the above stated goals and to enable the improvement of the target companies, it is an important, even inevitable task to pinpoint the business success factors (Fig. 1.) contributing to the basic capabilities enabling the competitiveness of Hungarian logistics companies.

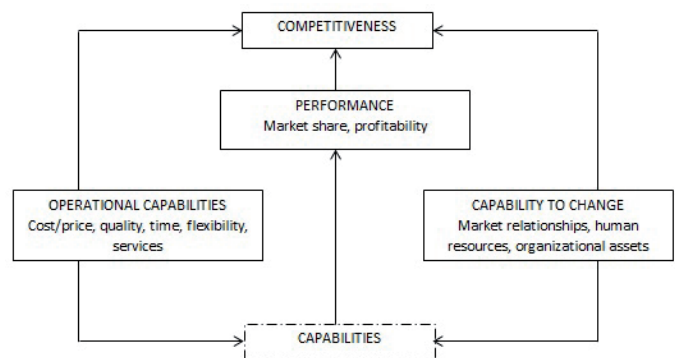


Fig. 1. Company competitiveness model (source: Chikán, 2013a)

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## 2 Literature review: Hungarian and international research into the business management of 3PLPs

There are relatively few number of studies into the operation and inner characteristics of 3 PLPs (logistics service providers) worldwide (Selviaridis-Spring, 2007), there are mostly American and English research results available (Murphy-Daley, 2001; Markides-Holweg, 2006). The recent years have seen some results from the northern part of Europe being published, e.g. Huemer (2012) looking into the features of the logistics stakeholders. In Hungary the study by Bokor with the title “Evaluating the intermodal logistics services and exploring their development possibilities” was published in 2005 (Bokor, 2005), which, in its parts relevant to 3 PLPs strives mainly to review the connected scientific literature, to give definitions and explanations.

In the appendix to the annual report of Association of Hungarian Forwarding and Logistic Service Providers some information can be found on the summarized data from a survey conducted among the member companies. Unfortunately, the response rate is 50% (thus it is built on the responses from 30-35 logistics providers), and the performance and economic data convey only very limited and too general information and it is only available for members.

The research by *Bank et al.* (2010) can be seen as a breakthrough, as it offers a thorough and comprehensive picture of the economic situation of the players on the Hungarian forwarders', shippers' and logistics providers' market; just as well as on the expected trends of the sector (*Bank, 2010*). In our days, logistics providers are frequently the topic of research featuring in the scientific literature (Horváth, 2012; Hegyi-Horváth, 2012; Bokor, 2012; Kovács and Katarzyna, 2012).

The empirical research within the framework of the doctoral dissertation provides a comprehensive study on the business success factors of the Hungarian logistics service providers. It builds on the literature enumerated above, however, it intends to shed new light on the operation of 3PL companies.

## 3 Success factors and aims of the research conducted among the Hungarian logistics providers

To lay down the foundations of the Hungarian research, the actual social, economic and political trends and influences experienced on Hungarian and international level have been explored. Building on these and clustering the success factors revealed, the factors providing the foundations of the research could be determined. These are:

*S1*: trust – effectiveness – flexibility (trust examined as a basic factor of inner-company and inter-company relationships, striving to reveal the role of the top manager in creating trust),

*S2*: time – service portfolio – flexibility (time based competition of products and services as a competition of supply chains, the composition and profitability of the service portfolio),

*S3*: finding the right company size – acquisition – strategies (a way to find the economies of scale of the logistics provider segment to be examined, the role of strategy choice),

*S4*: the level of logistics provider integration into the supply chain – the effect of (special) IT technologies and developments – and their relationship to flexibility, just as well as their influence on the financial results of the company.

By the means and clustering of the influences and trends explored, the goals of the research could be determined.

These are:

*C1*: to examine the role of trust and the effects of its extent on the effectiveness and flexibility of the logistics service providers. Within this, the role of the top manager in the inner-company and inter-company business relationships is to be examined and connected to that, how the top manager (his management approach) contributes to the effectiveness and flexibility of the logistics providers.

*C2*: to examine the composition of the Hungarian logistics providers' service portfolio, how its diversity affects profitability, and how that influences the effectiveness and flexibility of the logistics providers.

*C3*: to examine the effect of the acquisitions executed during the process of finding the right company size on the effectiveness and future strategy of the logistics providers. It is also an aim to investigate the role and significance of sector specific IT development in the effectiveness of the logistics providers, its influence on their effectiveness, development and level of integration.

To reach the goals of the research and to be able to formulate the hypothesis, more than 200 publications relevant to the field have been reviewed. During the course of this, the focus area of the research could be narrowed down further, enabling to conclude the following success factors: 1. Trust in the employees (inner trust) 2. General trust within the company 3. Management approach and the trust created by the top manager 4. Composition, diversity and profitability of the service portfolio 5. Growth strategy 6. Development by acquisition 7. Sector specific IT development.

In the course of the literature review, new structures have been developed describing how trust, culture and company organizations evolve and function (Figures 2. and 3.).

The model depicting the levels of the logistics service providers (PLPs) can be considered as a novel approach to the subject (Fig. 4.).

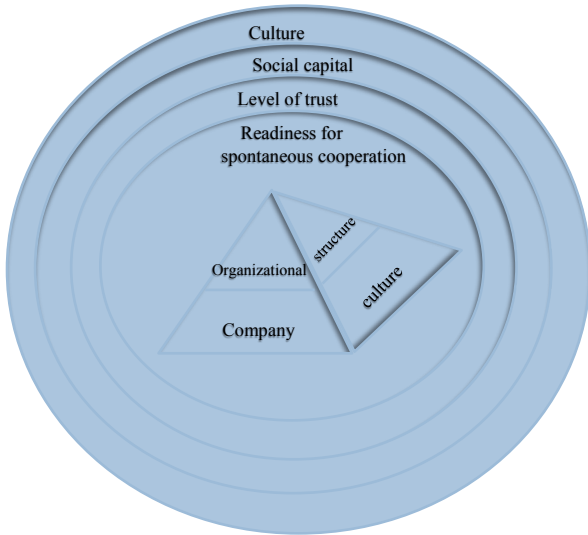


Fig. 2. Role of culture and trust in the evolution and cooperation of companies (Source: own edition)

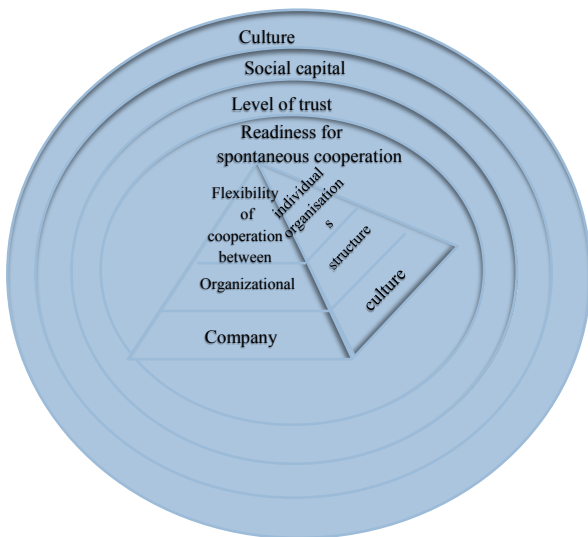


Fig. 3. Role of culture and trust in the evolution and cooperation of companies (extended) (Source: own edition)

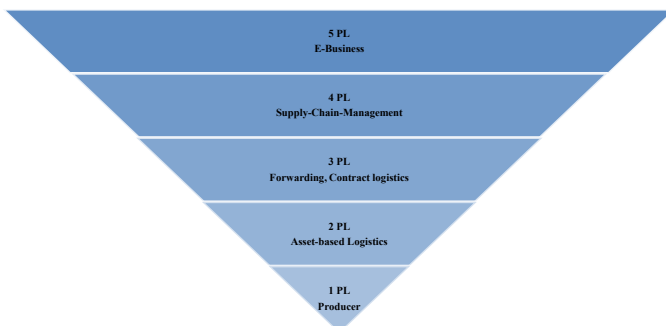


Fig. 4. The “inverse pyramid” of logistics services (Source: own edition)

#### 4 The hypotheses

By determining the hypotheses, key success factors related to operation are to be taken into account as a first priority, and their role and relationship to the competitiveness factors of the Hungarian logistics providers need to be examined (and within that, viewed separately from the aspect of performance, and their actual capabilities, just as well as their capability to change).

After the literature review, the following hypotheses have been determined:

*HP1:* The inner-company trust of the Hungarian logistics providers has an influence on the effectiveness of the companies (on the revenue and on the earnings before taxes),

*HP2:* The inner-company trust created by the Hungarian logistics service providers has an influence on the flexibility of the logistics providers examined, and

*HP3:* The level of trust in business relationships created by the top manager of the Hungarian service providers has an influence on the effectiveness (revenue and earnings before taxes) and on the flexibility of the logistics companies examined.

*HP4.1:* The effectiveness of the Hungarian logistics providers is determined by the composition of their service portfolio,

*HP4.2:* The portfolio composition of the Hungarian service providers has an influence on the flexibility of the companies.

*HP 5.1:* Growth by acquisition (search for economies of scale) supports the effectiveness (the increase in earnings before taxes) of Hungarian logistics service providers more than organic growth and

*HP5.2:* The mid-term, growth-oriented strategy contributes more to the effectiveness (the increase in earnings before taxes) of Hungarian logistics service providers than other strategies.

*HP6.1:* The effectiveness (the revenues and the earnings before taxes) of Hungarian logistics service providers depends on the sector specific IT developments of the company,

*HP6.2:* The level of Hungarian logistics providers integration into the supply chain depends on the sector specific IT development realized by the company, and

*HP6.3:* The sector specific IT development of the Hungarian logistics service providers influences the companies’ flexibility.

#### 5 Data collection, examinations and theses

An empirical, primary research survey (56 questions) was conducted by contacting 284 Hungarian logistics service providers. The 56 respondents (which are 20% of the target enterprises) provided a representative sample enabling the analysis of the total sample and drawing relevant and general conclusions (as based on the financial data the revenue of the respondents was 50% more than that of the target groups revenue). The data of the responses were complemented with the available and relevant financial results of the companies (revenue, earnings before sales). The data available were analysed by the SPSS software using different examination methods (Student’s t-test, Levene’s test, Analysis of variance, Cramér’s V).

The research yielded the following results:

*T1:* Regarding the Hungarian logistics companies, higher inner-company trust (trust towards the employees) supports a positive change in the effectiveness (earnings before taxes) of a company.

*T2:* Regarding the Hungarian logistics companies, the extreme (very low or very high) values of flexibility entail lower general inner-company trust, while in case of companies with average flexibility this inner trust is higher.

*T3:* Regarding the Hungarian logistics companies, stakeholder trust results in higher flexibility.

*T4.1:* Regarding Hungarian logistics companies, there is a negative relationship between the profitability based diversity of the service portfolio and the change in the results of the company: the more diverse the service-portfolio, the more the earnings before taxes deteriorated from year 2011 to 2012.

*T4.2:* Regarding the Hungarian logistics companies, there is a positive relationship between the profitability based diversity of the service portfolio and flexibility: the more diverse the service portfolio, the more flexible is the company.

*T5.1:* Regarding the Hungarian logistics companies, companies following acquisition based growth strategies reach significantly higher revenues than the companies with organic growth strategies.

*T5.2:* The Hungarian logistics companies operate more effectively if they have a growth strategy (independently of its time horizon). This claim is valid for those companies who could grow recently, but it is just as well valid for those, who could not.

*T6.1:* The effectiveness (revenues and earnings before taxes) of Hungarian logistics companies depends on the sector specific IT developments at the firm.

*T6.2:* The degree of supply chain integration of the Hungarian logistics service providers depends on the sector specific IT developments at the firm: companies with higher sector specific IT development are more integrated into the supply chain. Utilizing the results ensuing from the examination of hypothesis *HP6.3*, an antithesis can be formulated, i.e. *AT6.3*: Neither a sector specific nor any other IT development does have any influence on the flexibility of the Hungarian logistics companies.

## 6 Conclusion

The research conducted among the Hungarian service providers focusing on the business success factors yielded meaningful results. The results sometimes contradict the strategies adopted in real life, while in some cases they prove the best practice employed. Thus the results of the dissertation are useful for Hungarian and international experts in the field as well. Out of the 10 hypothesis, 7 have been fully, 1 partially justified, 1 was rejected and 1 was converted into an antithesis.

The consequences convey important information to the managers of the Hungarian logistics service providers and support the managers of the Hungarian logistics service providers in making the best possible decisions for the future.

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