

ASPECTS OF COMPETITIVENESS OF THE TFL SECTOR IN POLAND

Dariusz Krzywda, Ph.D

Częstochowa University of Technology
Faculty of Management, Institute for Logistics and International Management
Częstochowa, Poland

Marlena Grabowska, Ph.D

Częstochowa University of Technology
Faculty of Management, Institute for Logistics and International Management
Częstochowa, Poland

Joanna Krzywda, Ph.D

Częstochowa University of Technology
Faculty of Management, Institute for Logistics and International Management
Częstochowa, Poland

Abstract

Studies concerning the TFL sector (transport, forwarding, logistics) are an inseparable part of a discussion on economic condition of each state. This sector is closely connected with the condition of the national economy and is called the lifeblood of the economy. Therefore, it is important that this sector remains competitive and guarantees quality services at appropriate prices. Studies concerning the Polish TFL sector show that it has undergone major changes since Poland's accession to the EU. The circle of customers grew wider and due to open borders new opportunities appeared for the sector to exploit its potential. The 2008 crisis triggered further changes. Some TFL companies, especially those with an established position in the market, took advantage of the crisis and took over small enterprises, which led to their growing dominance and greater market share. Thus, the sector experienced polarization. Currently, the Polish market is thought to be very difficult due to high fuel prices and high fees. But the basic difficulty is very strong competition. Recent research studies show that there are about 70 enterprises in Poland. The studies also reveal continuous reshuffles in the leader positions and a clear segmentation of the market, which is dominated by companies operating internationally.

The paper will focus on theoretical and empirical research into the competitive status of TFL enterprises. The research topic is significant as competition and competitiveness are one of the basic attributes of market economy. Economic success of an enterprise is often identified with its favourable competitive status and competitive advantage. Enterprises operating in the market have a specific competitive position which, when compared to other entities, can be favourable or unfavourable, thus showing the strength of an enterprise against its competitors. Competitive analysis of enterprises employs measures of concentration, including the Herfindahl-Hirschman index (HHI). The study determines the HHI level for the TFL sector in relation to fixed assets concentration and concentration of revenues. In further empirical research, factors of competitive position in the narrow sense have been identified. Market share has been presented through the rate of asset concentration and the rate of revenue concentration while the financial standing of TFL enterprises has been illustrated through selected profitability indices, i.e. return on gross profit and return on fixed assets. The empirical research conducted served as the basis for verification of the hypothesis that a leading position of an enterprise in terms of market share coincides with its leading position in terms of its rate of return. The quantitative analysis was based on the 2013 data for TFL enterprises operating in the territory of Poland. The research sample included entities operating in at least two branches of transport.

Key words: TFL sector, competitiveness, TFL enterprises in Poland

Introduction

Studies concerning the TFL sector (transport, forwarding, logistics) are an inseparable part of a discussion on economic condition of each state. This sector is closely connected with the condition of the national economy and is called the lifeblood of the economy. (Rydzkowski & Król, 1997, p. 263) The literature on the subject clearly emphasises interdependence of a national economy development level on the development of its transport system and stresses the fact that this sector provides services for other sectors of the national economy, such as e.g. construction industry or agriculture (Gryko-Nikitin, 2010, p. 40).

The TFL sector is one of the most dynamically developing industries in Poland, and its essential attribute is a most intense competition. Enterprises entering this specific and tough market as well as those determined to remain in operation face a considerable challenge, which is having to continuously monitor the market situation. Hence, the need for research which can illustrate competitiveness in this industry sector. Relevant studies may be a source of invaluable information for enterprises operating in this sector, but they may also motivate the legislative branch to undertake actions aiming at protecting this particular sector from a decrease in competitiveness.

Development of the TFL sector in Poland

Market economy in Poland, and thus, the operation of the TFL entities in the present shape, is based on the Law on Economic Activity of 1988. It needs to be remembered that until 1989 Poland had been a communist country, and the introduction of this Act gave all Polish citizens the possibility to undertake and run business activity on equal terms. This activated small entrepreneurship, which in turn provided a host of employment opportunities. The 1988 Act, when combined with the implementation of the supply and demand economy (i.e. market economy) which replaced the centrally-controlled economy, resulted in a major economic boost at the very beginning of the 1990s. The Act required only eleven sectors of economic activity, including transport, to obtain a licence. That gave the rise to the emergence of forwarding and transport companies. Those were generally small entities, based on a family capital (Romanow, 2008, p. 34).

The following years witnessed the implementation of a number of legal regulations aiming at liberalization of the transport market. However, it was the accession of Poland to the European Union in 2004, which offered carriers an unlimited access to the EU market. This was also the first trial period for the Polish TFL market. Opening the borders resulted in the development of that sector, mainly due to medium- and large-sized logistics enterprises. (Gryko-Nikitin, 2010, p. 40). But increased revenues of transport entities had been observed before Poland became a member of the European Union.

The years of 2004-2008 were a period of rapid development of enterprises in this sector. In 2006, the domestic TFL market value exceeded PLN 17,000,000,000, which comprised 11 % of the national income. However, the competition, which was continuously growing after Poland's accession to the EU, eliminated a number of small family-run businesses. The first decade of the 21st century witnessed an increased specialization among transport companies, the causes of which must be associated with a high level of competition on the market. A growing interest of enterprises in outsourcing of services also made a significant difference, as it caused an increased demand for transport and forwarding services (Romanow, 2008, p. 34).

Globalization, increasing since the 1990s, also managed to reach Poland and brought an easier access to the world markets. The globalization processes also involved enterprises operating in the TFL sector. Poland's accession to the European Union boosted the development of this sector with its driving force being the trade, a trend present among foreign entities to transfer production in order to employ cheaper labour force, and last but not least - Poland's favourable location in Europe. Other phenomena which accompanied Poland's accession to the EU included an increase in the number of companies operating in the sector. In the years to come the TFL market in Poland experienced a dynamic growth, which has resulted in stronger competition in the sector (Krajewska & Łukasik, 2010, p. 171).

The global economic crisis of 2008-2009 significantly affected the condition of the TFL sector in Poland. As early as within the first 3-4 months from the first signs of the crisis many TFL enterprises introduced the first changes in their policy (Zysińska, 2010, p. 48). In that period enterprises adopted various competition strategies, mostly the cost leadership strategy, but also product and market diversification or internationalization strategy. The choice of strategy was largely determined by the size of an enterprise. The most powerful enterprises used the crisis to their advantage by taking over smaller entities or forming mergers, thus integrating and

consolidating the market. However, the acquirers were almost exclusively companies which were part of internationally or globally operating organizations.

The crisis of 2008 forced the TFL enterprises to undertake activities aiming at attracting new customers and making savings, mainly by employing cost-saving measures. The most important criterion when choosing a provider of logistics services proved to be the price for the service, which resulted in fierce price competition among some entities. The strategy mainly involved limiting the fixed costs generated by fixed assets (Rydzkowski, <https://ekonom.ug.edu.pl>). The economic slowdown eliminated those entities which proved to be the weakest, the least flexible, ineffective, and offered a limited scope of services. They were replaced by new entities seeking niche markets and providing an extensive range of services. The 2008 crisis influenced most industries but the TFL market was most adversely affected at the time. Many entities failed in the battle for customers and went bankrupt.

At present it is believed that the TFL sector still faces a fierce competition, mainly in terms of prices. Poland is thought to have a very good competitive position on the international market as Polish entities provide a wide range of services abroad. But despite a certain dose of optimism within this area, further problems are expected with regard to the political situation (the conflict in the east of Ukraine and the embargo) and the legal situation (implementation of the minimum wage in Germany which also affects Polish companies providing services in that country).

Selected methods of measuring competitive performance of companies

A significant characteristic feature of an enterprise competitiveness is its competitive position relative to its competitors. Sharing the opinion of M.E. Porter (2006, p. 28), it can be stated that competitive position reflects a continuous battle between competing businesses. While being a decisive factor which affects a company's market power, the improvement of its competitive position is at the same time an important element of the company's competitive strategy. It is also said that the analysis of an enterprise competitive performance makes it possible to evaluate its present possibilities as well as directions of and perspectives for further development (Jonas, 2002, p. 16). However, despite the significance of this issue, the literature on the subject does not offer a uniform definition of a competitive position. According to M.J. Stankiewicz this issue relates to the competitive effect, which is reflected in the value generated by a given business (Stankiewicz, 2002, p. 297). Hence, competitive position is a measurable effect of competition reflected by generated value. Therefore, it can be said that competing and building competitive position, as opposed to generating added value, is a means and not an aim of business activity. Kusa (2008, p. 63) observes that evaluation delivered by the market itself, reflected in the value of an enterprise is an excellent determinant of its competition position. In the narrow sense, it is only related to the result of an assessment of products and/or services. This assessment is made by the market, and specifically by customers (Grabowski, 1994, p. 180). Simmonds (1996, p. 16), on the other hand, presents competitive position as a more complex issue, seeing it as power in relation to direct competitors in a given sector.

The literature offers a variety of methods used to measure competitiveness of enterprises. One of them is an analysis based on measuring concentration. Research into the mechanism of market structure affecting competitive behaviours of companies operating on the market has shown that an increase in concentration means a decrease in competition (Mesjasz-Lech, 2009, p. 154). The Herfindahl-Hirschman (*HH*) index is regarded as one of the most useful methods for measuring competitiveness. The *HH* index is defined as the sum of the squared shares of individual entities in the total value of an investigated characteristic feature (Jackowicz, Kowalewski, 2002, p. 13-14). It is expressed by the following formula:

$$HH = \sum_{i=1}^n u_i^2,$$

where u_i is the share of a firm i , and n is the total number of firms in the market. The *HH* index takes values falling between $(1/n; 1)$, where the higher the value, the heavier the concentration.

Pursuant to the recommendations made by the U.S. Department of Justice and the Federal Trade Commission there are three basic types of markets in respect to the concentration level (Horizontal Merger Guidelines, 2010, paragraph 5.3):

- < 0.15 (unconcentrated market), i.e. a competitive market,
- 0.15-0.25 (moderately concentrated market), i.e. moderately competitive market,
- > 0.25 (highly concentrated market), i.e. uncompetitive market.

The above thresholds refer to competitiveness of the market in which a firm operates.

However, when discussing the notion of competitiveness in the context of a company's competitive position, it is possible to quote the viewpoint offered by Pierscionek (2011, p. 197). The author observes that competitiveness of enterprises can be assessed by evaluating the effects of their operation involving market share and profitability level identification. A similar approach is presented by Skawińska and Zalewski (2009, p. 52-53), who determine competitive position of a firm through its market share and financial standing measured by profitability indices. Another method of measuring market position of a firm is based on the calculation of its market share. This method belongs to statistical calculation of concentration (Spodarev, 2008, p. 20). In this particular approach market position can be described as a relative share of sales of an enterprise in the total sales of enterprises operating on the market. In the literature on the subject this calculation, presented as the most straightforward measure of enterprise concentration, is referred to as enterprise concentration rate (Duraj, 1993, p. 131). The percentage share obtained represents the rate of participation of revenue generated by a given enterprise in the total amount of market revenue. Thus, in a narrow sense the achieved position in a given sector and financial standing of an enterprise expressed by profitability indices may serve as quantifiers of the competitive position of an enterprise.

Empirical verification of the competitive position of enterprises

Empirical studies covered enterprises listed in the TFL sector ranking (Ranking branży TSL, TSL – Magazyn Branżowo-Informacyjny, www.businessvoice.pl), which comprised 74 firms. The empirical analysis was used to calculate the rate of competitiveness for the sector and competitive positions of individual enterprises operating in the TFL market. The value of the Herfindahl-Hirschman concentration index (HHI) was determined. The analysis comprised fixed assets and revenue in the TFL sector. From among the enterprises covered by the ranking, distinguished were those which published the data necessary to determine the rate of concentration and to verify the competitive position. 71 enterprises were selected to calculate the value of the Herfindahl-Hirschman index for the concentration of sales revenue and the index for the concentration of fixed assets was calculated for 58 companies. The competitive position was verified against the data from 53 firms. The figures were analysed for the year 2013. The Herfindahl-Hirschman index values are presented in Table 1.

Table 1. Herfindahl-Hirschman indices (HHI) for the concentration of fixed assets and revenue of TFL companies in 2013

HHI	value
Fixed assets concentration	0.05670
Revenue concentration	0.03964

Source: Authors' own elaboration.

The analysis of the Herfindahl-Hirschman indices for the concentration of fixed assets and sales revenue shows that the values do not exceed 0.15. Therefore, the sector under study is less concentrated in terms of both sales revenue and fixed assets, and thus it is a competitive industry.

Further study involved identifying factors affecting the competitive position in a narrow sense, with an appropriate weight attributed to them. Those factors reflect the market share and financial standing of an enterprise measured with selected profitability indices (see Table 2).

Table 2. Measuring a company's competitive position – narrow approach

Factors influencing the competitive position of an enterprise		weight
market share	fixed assets concentration rate	0.250
	revenue concentration rate	0.250
financial standing of an enterprise	return on gross profit	0.250
	return on fixed assets	0.250
TOTAL		1

Source: Authors' own elaboration based on Otola (2013, p. 182).

Market share was described with the rate of fixed assets concentration and the revenue concentration rate. The rate of concentration of fixed assets is the ratio of the company's fixed assets value to the total assets of all companies in the sector. The revenue concentration rate is the share of sales revenue of an enterprise in the total sales of the whole sector. The financial standing of an enterprise has been expressed with the use selected profitability indices. Market share and profitability were evaluated by dividing a given group into six parts using centiles. In this way a grading scale from 1 to 6 was drawn for evaluating the company's standing, with 1 meaning very poor, 2 – poor, 3 – rather poor, 4 – rather good, 5 – good, and 6 – very good (Otola, 2013, p. 182). On the basis of the scale and weights assigned to individual factors, the weighted mean was calculated which was used to make a ranking list of the companies. The empirical values reflecting the TFL ranking list are presented in Table 3.

Table 3. Competitive position ranking list of the TFL enterprises

Company	market share - sales	market share - assets	return on gross profit	return on fixed assets	sum	ranking
DPD Polska Sp. z o.o.	6	6	6	5	5.75	1
Siódemka S.A	6	4	6	6	5.5	2
Adampol S.A.	6	6	5	3	5	3
Grupa OMEGA Pilzno	6	6	5	2	4.75	4
BATIM TRANSPORT MIĘDZYNARODOWY I SPEDYCJA	5	6	5	3	4.75	4
PEKAES	6	1	5	6	4.5	6
FIEGE sp. z o.o.	4	6	6	2	4.5	6
JAS - FBG S.A.	6	6	3	2	4.25	8
Panalpina Polska sp. z o.o.	6	2	3	6	4.25	8
LINK sp. z o.o.	5	6	4	2	4.25	8
MEXEM sp. z o.o.	5	5	4	3	4.25	8
Przedsiębiorstwo Przewozu Towarów PKS Gdańsk-Oliwa SA	5	4	4	4	4.25	8
Enterprise Logistica sp. z o.o. S.K.A.	2	4	6	5	4.25	8
ERONTRANS SP. Z O.O	6	5	2	3	4	14
CAT LC Polska sp. z o.o.	5	2	3	6	4	14
REGESTA S.A.	4	4	4	4	4	14
Trans Polonia S.A.	2	5	6	3	4	14
PKS International Cargo S.A.	2	3	6	5	4	14
LOTOS Kolej Sp. z o.o.	6	6	2	1	3.75	19
CARGOSPED Sp. z o.o.	5	4	3	3	3.75	19
SPEDYTORZY MIĘDZYNARODOWI sp. z o.o.	4	3	4	4	3.75	19
Trans Logistyka - Olga Juchniewicz s.k.	2	3	5	5	3.75	19
UPS TRANSPORT SPEDIOTION Ryszard Olszewski	1	2	6	6	3.75	19
FREIGHTLINER PL sp. z o.o.	4	3	3	4	3.5	24
PKS SA C. HARTWIG	4	6	3	1	3.5	24

SZCZECIN						
Logwin Air + Ocean Poland	3	3	4	4	3.5	24
Optima sp. z o.o.	3	3	4	4	3.5	24
VIVE TRANSPORT sp. z o.o.	2	5	5	2	3.5	24
INTERTRANSPORT CENTRE - POLSKA sp. z o.o.	2	4	5	3	3.5	24
GRUPA DTA	1	1	6	6	3.5	24
Transrem sp. z o.o.	1	2	6	5	3.5	24
TARGORTRUCK sp. z o.o.	4	5	2	2	3.25	32
MAGTRANS	4	5	2	2	3.25	32
Spedycja Międzynarodowa Agroland sp. z o.o.	2	2	4	5	3.25	32
Langowski Shipping Halina Langowska	1	1	5	6	3.25	32
Textra Poland sp. z o.o.	1	1	5	6	3.25	32
Hellmann Worldwide Logistics sp. z o.o.	5	3	1	3	3	37
SM Logistic sp. z o.o.	5	5	1	1	3	37
EUROGATE LOGISTICS sp. z o.o.	4	1	2	5	3	37
Asstra Polska	3	2	3	4	3	37
JURA POLSKA sp. z o.o.	3	2	2	5	3	37
Omida Group	3	1	2	5	2.75	42
BOTRANS	3	4	2	2	2.75	42
Colian Logistics sp. z o.o.	2	1	2	6	2.75	42
Polfrost Internationale Spedition sp. z o.o.	2	2	3	4	2.75	42
Yusen Logistics (Polska) sp. z o.o.	5	3	1	1	2.5	46
Spedimex sp. z o.o.	4	4	1	1	2.5	46
TIRSPED sp. z o.o.	3	5	1	1	2.5	46
ZTE RADOM sp. z o.o.	3	5	1	1	2.5	46
Loxxess Polska sp. z o.o.	1	2	4	1	2	50
NOX-POL sp. z o.o.	1	4	1	1	1.75	51
MEPP European Freight Solutions sp. z o.o.	1	1	1	4	1.75	51
Delphia Pisarska Klinkosz, Klinkosz i Zagarów sp.j.	1	1	1	2	1.25	53

Source: Authors' own elaboration.

The analysis of the above data shows that the company ranked in the top position is DPD Polska sp. z o.o., which obtained the weighted sum of 5.75. This position was due to a very good market share of the enterprise in terms of sales revenue, assets owned and return on gross profit. The company also had a good performance rate in the area of return on fixed assets. It can be therefore argued that in relation to its competitors the said company generates substantial revenue and has considerable fixed assets while at the same time its ability to earn gross profit is superior when compared to the competition.

The next top competitive position was taken by SIÓDEMKA S.A., which was ranked second. The company had very good results in three areas, i.e. concentration of revenue, return on gross profit and return on fixed assets. The factor of market share in terms of fixed assets was at a rather good level and the overall position of this enterprise relative to its competition was more than good.

It should be noted that a very good score in the market share did not always coincide with a very good financial standing of an enterprise. Examples include the following companies: ADAMPOL S.A., GRUPA OMEGA PILZNO, JAS – FBG S.A. and LOTOS KOLEJ Sp. z o.o. P.A.NOVA. Those companies displayed a very good market share in the TFL sector, but the profitability indices for those entities were not satisfactory.

Therefore, it can be concluded that despite having a large potential in terms of revenue generation or the assets owned, the companies were not able to achieve a good financial standing in terms of profitability. It is also possible to identify companies whose profitability indices earned 6 points and classified them to the top level. However, a very good profitability was correlated with a poor or very poor standing in terms of sales revenue and assets owned.

Further analysis of data shows that the companies occupying the last three ranking positions had bad results in at least three areas. In the six-grade scale used for the evaluation of those companies, all the values relating to the market share in terms of sales revenue and return on gross profit were at the lowest level, which implied a very poor standing. Summing up, it can be stated that three of the studied enterprises obtained the final score for competitive position of at least 5. Thus, the competitive standing of those companies ranges from good to very good. In the case of 15 enterprises studied, the weighted sum ranged from 4 to 5. Those entities displayed a rather good competitive position. On the other hand, 23 enterprises occupied a rather poor competitive position. Poor and very poor condition affected 12 enterprises under study.

Conclusion

The above study supports the arguments presented in the introductory part of the paper, according to which the TFL sector in Poland is characterised by a strong competition. This is reflected by the very number of enterprises covered by this study and operating on the Polish market. As it was mentioned in the first part of the empirical analysis, the Herfindahl-Hirschman index values did not exceed 0.15, which means that the TFL sector in Poland is not concentrated in terms of sales revenue and has a low concentration of fixed assets. Thus, it is a competitive sector, and the situation has not been changed even by the large number of acquisitions occurring recently. The study confirms the qualitative analyses presented in the literature. It can be generally concluded that the legal solutions introduced in Poland gave the TFL sector the possibility for development while creating rather equal chances in the competitive struggle.

In arriving at detailed conclusions it should be noted that a high market share of an enterprise is not frequently followed by its profitability. It should be a clear signal for the TFL companies to be taken into account when developing their strategy: great potential in the form of large fixed assets or sales does not have to translate into high profits. Companies operating in this sector should monitor the market situation and update their competitive strategies.

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About the Authors

Joanna Krzywda is an assistant professor at the Institute of Logistics and International Management, Faculty of Management, Czestochowa University of Technology, Poland. Her research fields are sustainable development in enterprises, especially in logistics, reverse logistics and waste management.

Marlena Grabowska is an assistant professor at the Institute of Logistics and International Management, Faculty of Management, Czestochowa University of Technology, Poland. She received her PhD in 2007. Her major field of research is value creation, entrepreneurship and strategic management.

Dariusz Krzywda is an assistant professor at the Institute of Logistics and International Management, Faculty of Management, Czestochowa University of Technology, Poland. His research fields are logistics, green logistics, reverse logistics and sustainable development.