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Analysis of Impact of the Crisis on Top50 Companies in Hungary

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ABSTRACT: The global financial crisis had a great impact on the world, and so did on Hungary. There were industries which were deeply impacted, and so the effect was greater on firms operating in these industries, while others were less concerned. In Hungary, the ranking of the largest 50 companies was fundamentally changed. There have been companies that have disappeared, and there were some, which have tried to survive the crisis through mergers and acquisitions. However, many companies seek to restructure and reduce their cost structures significantly, by forming shared services centers (SSCs), the number of which has grown strongly in the recent years. In our study we examine the reasons for their reactions to the crisis by comparing the situations before and after it.

KEYWORDS: Top50, economic crisis, companies

JEL codes: E32, L16

Introduction

The world economic crisis of 2007–2009 emerged as a purely financial crisis, however, it quickly spread to the real economy as well. Already by year 2008, most sectors of real economy were negatively affected, with diminishing profits and increasing number of company liquidations.

In our paper, the intention is to assess the situation of 50 biggest Hungarian companies before and after the crisis by examining their public financial data of fiscal years 2007 and 2014. The aim is to try to observe which industries were more deeply impacted by the economic downturn, and which sectors could better survive it.

Literature review

According to the definition of *Marosán* (2001), crisis is a condition in which the long-term viability of an organization ceases, and it becomes unable to fulfill its basic functions; it cannot comply with its mission drawn up by the founders, and its survival is at risk.

In theory, companies have multiple choices to counteract the effects of a crisis both on short and long terms; however, their actual possibilities are generally very limited. According to *Bod et al.* (2009), most of the Hungarian companies assessed in the survey primarily targeted cost cutting as a response to the crisis. Among the actual measures, many companies effected inventory reductions, cut payroll costs, postponed capital and maintenance expenditures, and also tried to seek price reductions from their vendors. From a more positive perspective, companies can also counteract the crisis by means of generating higher sales through increasing market share or by entering into new markets. With regards to the long term measures, enterprises generally consolidated their operations and reconsidered their organizations to achieve a more efficient general cost structure. Such strategic actions included changes in the product portfolio, insourcing or outsourcing decisions, as well as company restructuring via mergers, acquisitions and spinoffs.

Some companies might even benefit from the crisis. According to *Neumann and Boda* (2010), some enterprises actually reported increasing order volumes following the fails of their competitors, or could effectively utilize low raw material and wage costs.

The extent to which a company is affected by the economic crisis depends on various factors. With the outbreak of the crisis, most companies encountered falling sales and increasing financing costs. Hence, the higher reduction of demand occurred in the main market of a company, the more susceptible it was to lose revenues. Also, entities with higher indebtedness faced bigger difficulties with rising interest expenses and cumbersome credit renewals.

Establishment of Shared Services Centers (SSCs) constitutes a specific type of outsourcing. SSCs provide services based on the authorization from a mother company to more than one subsidiary in a global or regional level. They can either be run by a company of the group or by an outside provider. In some cases, they are open to third parties also. SSCs are widely used by multinationals, supported by the development of telecommunication and information technologies as well as by the internationalization of services and by cost saving needs. SSCs can though be useful in case of repetitive standard transactions performed in large volumes.

According to *Lovelock* (1999), services can be qualified by their objects as services aimed at people, objects or information. Of these types,

services aimed at information are the most susceptible of outsourcing as they concern intangible assets or the thinking of the customer (e.g. advisory services). They do not necessitate local presence as SSCs can contact customers by means of telecommunication. Though, services have also some attributes that make it more difficult to 'internationalize' them, such as intangibility, inability to be inventoried, simultaneity and the subjectivity of the customer's perception (*Demeter–Gelei*, 2002).

Methodology and work done

To conduct the assessment, the list of 50 biggest companies in Hungary in years 2007 and 2014 was taken, and their financial reports for the respective years got collected. Statutory annual statements are a good informational base as changes in net sales and shifts in financial positions can easily be inspected. The official Top500 list for Central and Eastern Europe (CEE) countries is prepared by Deloitte every year. These documents were downloaded and extended with other data from the official statements. All official statutory annual statements, balance sheets and income statements got downloaded from the government's site. After it, all data was gathered into one file and converted into million euros based on the official rates published by the Hungarian National Bank. At this point data consistency check was conducted by comparing the downloaded ones with the common ones in the Deloitte list (income, revenue), and corrections were done if necessary.

Detailed analysis of the Top 50 Hungarian companies

Industrial distribution

First the industrial distribution of the Top 50 Hungarian companies in years 2007 and 2014 will be reviewed. Of the 50 biggest firms in 2007, 13 operated in the Energy & Resources sector, followed by Manufacturing (12) and Consumer Business & Transportation (10). As for year 2014, the largest portion of the Top 50 companies still operated in the Energy & Resources industry, representing 16 companies, thus an increase of 3 entities compared to 2007. Also Manufacturing increased its share by 2014 with 3 firms. The number of companies in the third biggest sector (Consumer Business) remained the same with 10 entities. The changes in the

share of industries within the biggest 50 companies in Hungary can be visualized by the following radar chart. It can easily be observed that the sector to experience the biggest loss of rankings was Technology & Telecommunications. No company represented Real Estate sector in 2014.

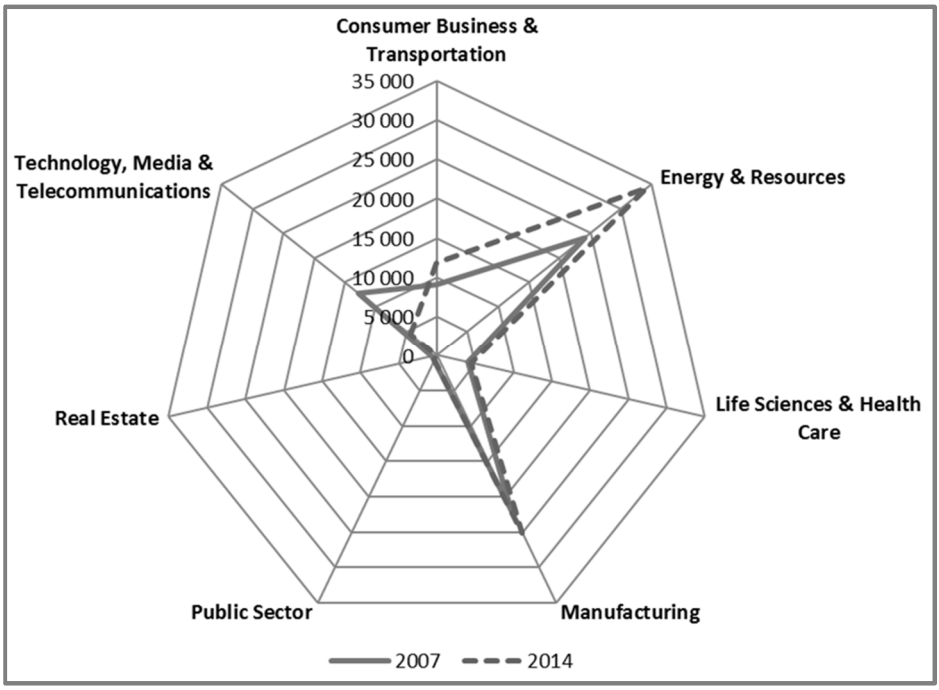

Figure 1.: Industrial distribution of the Top 50 Hungarian companies

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

If a closer look into the changes in net revenues of the companies listed among the Top 50 Hungarian companies between 2007 and 2014 by industry is made, as the following chart explains, Energy & Resources sector extended its share from 33% to 42%, which is in line with the higher number of companies in this industry. Also the biggest loss in share was reported by the Technology & Telecommunications sector, from 17% to 5%. The proportion of the other sector remained almost steady.

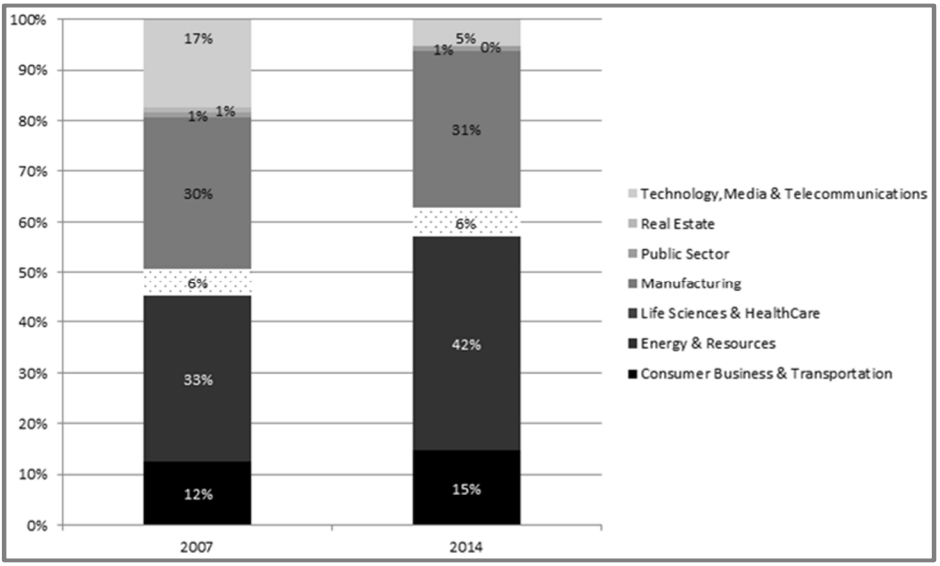

Figure 2.: Share of net revenues by sector

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Average industry returns

The changes in average returns of the Top 50 companies were investigated by industry, considering weighted average Returns of Equity (ROEs). The following chart shows that the highest return was reported by the Real Estate industry in 2007. It is important to note that the outstanding return in the Energy & Resources sector turned into the negative range by 2014. Also with the exception of HealthCare and Consumer Business that recorded a slight increase of 1%-point, all other industries experienced lower returns in 2014 than in 2007. Note that in year 2014, no company was categorized into the Real Estate sector, thus no return could be calculated for this industry.

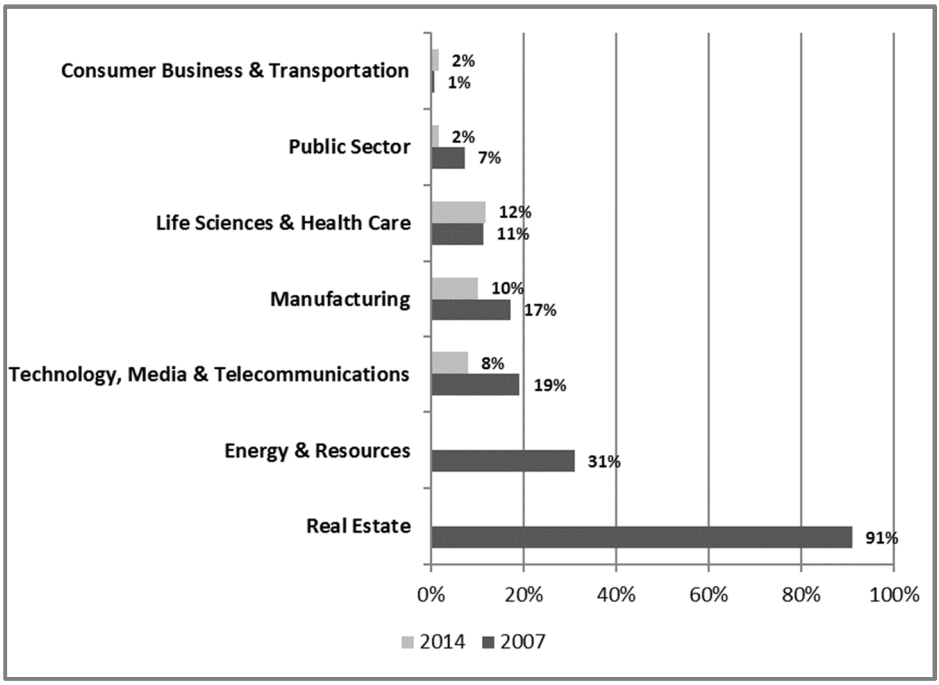

Figure 3.: Average industry ROE

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Capitalization by industries

With regards to the capitalization of the industries, the aggregate equity of the firms in each sector could be studied. The biggest capitalization was reported in the Energy & Resources industry both in 2007 and in 2014, and also this sector increased its equity level by the highest amount, followed by Consumer Business and Manufacturing sectors. The below examination shows that a there is a massive loss of capital in the Technology & Telecommunications sector and also a smaller reduction in the Health Care industry.

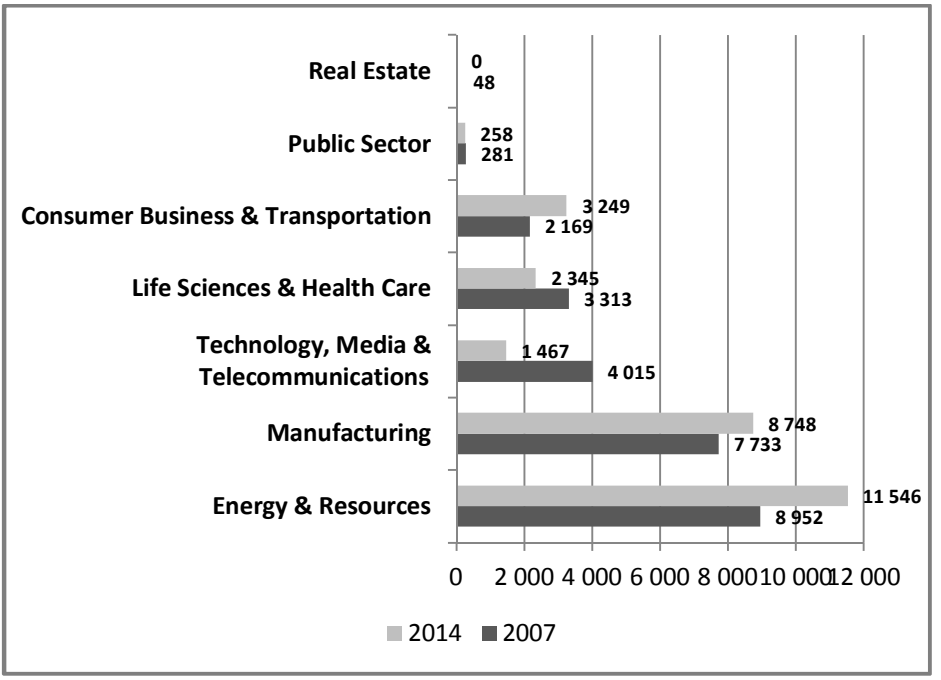

Figure 4.: Capitalization by industries

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Average indebtedness

To investigate the indebtedness of the sectors, a weighted average debt ratio was calculated (total liabilities divided by total assets) of the companies in each industry. Based on our calculations, we established that indebtedness was reduced in the Consumer Business industry (by 23 percentage points) and in the Public Sector (by 11 percentage points), while it rose slightly in all other sectors (by 2 to 9 percentage points) from 2007 to 2014.

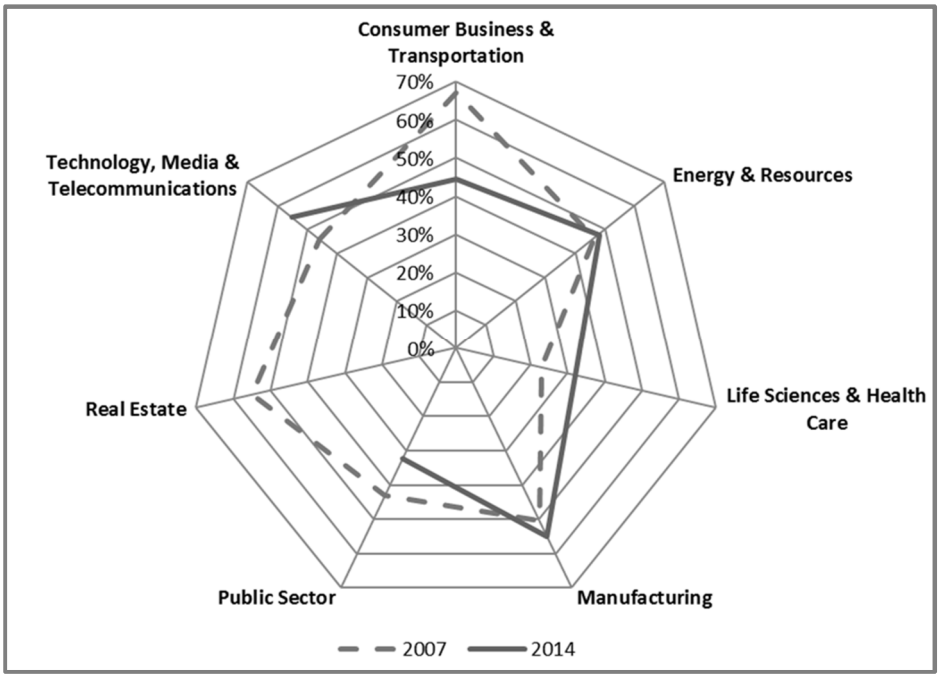

Figure 5.: Industry average indebtedness

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Export revenues

As next, the developments in the export revenues of the entities listed among the Top 50 Hungarian companies were examined. The 50 biggest companies are key players in Hungarian foreign trade as their export revenues represent approximately 40% of the total exports of Hungary. From year 2007 to 2014, Manufacturing sector increased its export revenues most by EUR 5.7 billion, followed by Consumer Business (EUR 2.7 billion) and Energy & Resources (EUR 1.2 billion). Among the Top 50 companies, Technology and Healthcare sectors lost export revenues by EUR 6.6 billion and by EUR 0.2 billion, respectively.

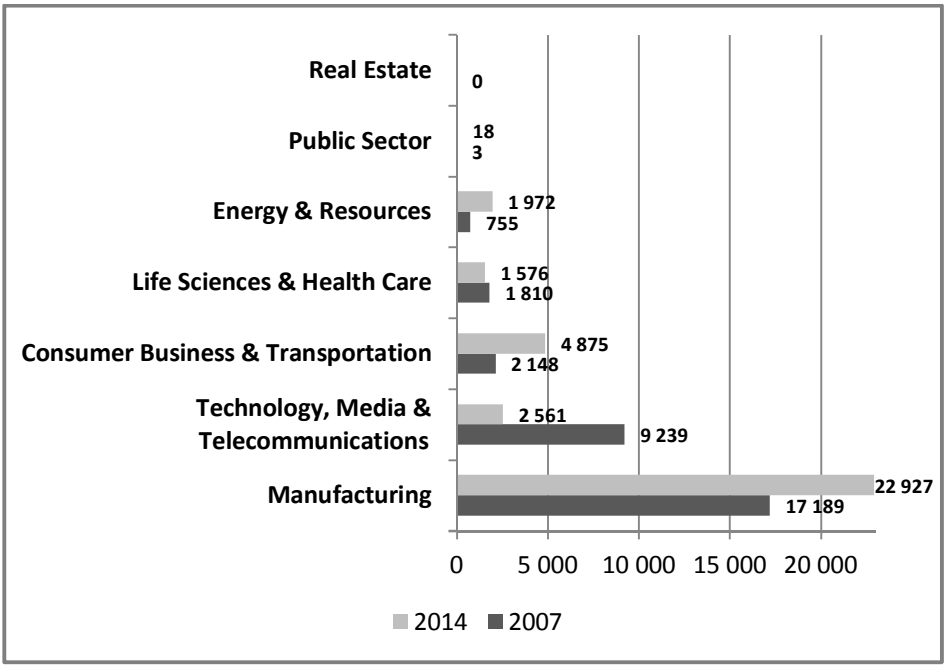

Figure 6.: Export revenues by industry

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Scorecard summary

The results of the calculations are summarized in the following scorecard, evaluating the favorable/unfavorable developments in each sector as per the factors examined.

As the scorecard shows, Consumer Business sector developed absolutely positively, while Technology & Telecommunications declined in each respect analyzed. In the same time, other industries showed a mixed picture.

A further more detailed analysis of the export data was made by splitting the companies into two groups: the ownership is mainly domestic (Hungarian), or owned mainly by foreign investors. In 2007 we could identify 14 companies in domestic ownership (mainly in the following sectors: Energy & Resources – 7, Consumer Business & Transportation – 3), and 27 owned by other nationalities (represented in Consumer Busi-

ness & Transportation, Manufacturing, Technology, Media & Telecommunications – 7 each). In 9 cases the ownership couldn't be identified surely. After the global crisis, in 2014 we can see, that the domestic-owned companies were only represented by 9 entities (6 of them in the Energy & Resources sector), while the number of internationally owned companies rose up to 30. The Energy & Resources and the Manufacturing sectors got stronger, with 8 and 10 representative companies, respectively, while the Technology, Media & Telecommunications sector showed the biggest decline. The number of companies working in this sector decreased down to 3 representatives, from which another one (Nokia Komárom) is undergoing business shutdown and will not be part of the Top 50 list anymore.

Table 1.: Scorecard summary

Industry branches	No. of companies	ROE	Capital	Debt	Export
Consumer Business & Transportation	●	▲	▲	▲	▲
Energy & Resources	▲	▼	▲	▼	▲
Life Sciences & Health Care	●	▲	▼	▼	▼
Manufacturing	▲	▼	▲	▼	▲
Public Sector	●	▼	▼	▲	▲
Real Estate	▼	N/A	N/A	N/A	N/A
Technology, Media & Telecommunications	▼	▼	▼	▼	▼
Legend: ▲: favorable; ●: neutral; ▼: unfavorable					

Source: Own calculations

If a closer look is taken at the data, it can be seen, that the domestic-owned companies mainly sell for the domestic market, while the other companies make 4 times as much revenue (EUR 42 542.57 million compared to EUR 10,312.87 million in 2007 and 40 649.84 million to 10 414.10 million in 2014), and their main customers are found on the markets outside of the country, generating revenues mainly from export. This also seems to prove the double duality theory of *Reszegi and Juhász* (2014), whereas they stated, that not only there's a duality within the companies operating in Hungary based on their ownership, but there's also a duality within them. For the Hungarian owned companies this can be identified through the main markets – if it's mainly exporting, or selling to the

domestic markets. The data analyzed showed a significant dependency based on the revenues. The Hungarian companies were either making products and selling for the domestic market, or were also exporting – mostly as suppliers to the international companies located in Hungary. The other split was done within the international companies. They could either outsource their standard, non-skilled work for example: line-works (putting together the small ready-prepared parts in Audi factory, or for Nokia phones), while others outsource some skill-requiring activities (for example the finance departments and accounting of huge companies). The authors based their hypothesis on the salaries and headcount numbers, from which they derived the average salary. From the average salary they made the deductions for the type of work carried out: either cheap non-skilled, or more expensive, which are requiring higher-educated skills.

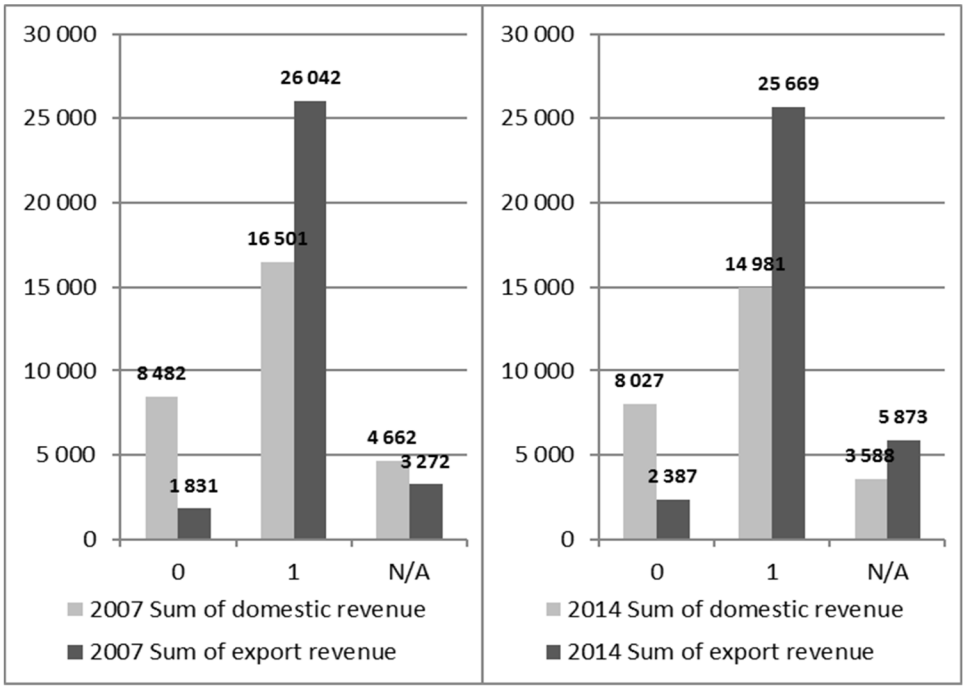

Figure 7.: Volumes in export and domestic revenue 2007 & 2014

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

This also shows the problem of integration, indicated by *Vahl* (2013), who led several conversations with directors of multinational firms, where it was clearly stated, that the Hungarian small and middle enterprises are

not yet prepared to be efficient suppliers. For example he revealed the case study with Tesco, who tried to order from local farmers, but they just weren't able to deliver a product in such a quantity as Tesco would have required it, furthermore they couldn't even guarantee that the product would be grown ready by the given due date.

Cash reserves

According to *Lynch (2008)*, those companies, who have a higher balance of cash in their books, are subject to higher performance and growth in the future. Based on the balance sheet data, we could see that MOL Hungary had extreme values, so we excluded this company to get more fair values. We can state, that the cash held by all kinds of companies increased significantly, meaning that a rather careful financial policy has been carried out after the crisis. Companies are focusing on increasing their Working Capital, by reducing average payment terms with customers and negotiating longer payment terms with suppliers, but also focus on reducing stocks, if possible, all this resulting in the increase of cash owned.

Table 2.: Cash held by the companies in 2007

Foreign=1/ Domestic=0	Industry	Sum of Cash
0	Consumer Business & Transportation	12
	Energy & Resources	33
	Public Sector	71
0 Total		116
1	Consumer Business & Transportation	48
	Energy & Resources	6
	Technology, Media & Telecommunications	15
1 Total		69
N/A	Manufacturing	109
N/A Total		109
Grand Total		293

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Table 3.: Cash held by the companies in 2014

Foreign=1/ Domestic=0	Industry	Sum of Cash
0	Consumer Business & Transportation	17
	Energy & Resources	344
	Manufacturing	20
	PS	83
0 Total		*463*
1	Consumer Business & Transportation	202
	Energy & Resources	52
	Life Sciences & Health Care	367
	Manufacturing	261
	Technology, Media & Telecommunications	25
1 Total		*907*
N/A	Consumer Business &Transportation	239
	Energy & Resources	32
	Life Sciences & Health Care	6
	Manufacturing	124
N/A Total		*401*
Grand Total		***1 771***

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

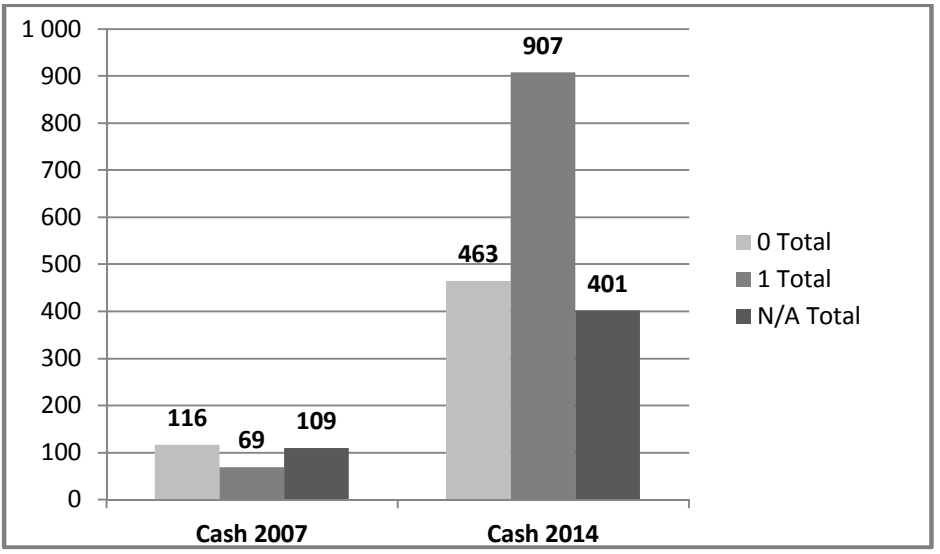

Figure 8.: Changes in the amount of cash held between 2007 and 2014

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Investing

On the other side, companies are more focused on surviving than doing investments for longer terms. This can be seen in the decrease of fixed assets in almost every industry. The only exception to it is the Manufacturing industry. The main reason is the new investments done by GE (new centers established – SSC, Training Center), Audi (additional manufacturing brought to Hungary) and the freshly established factory by Mercedes.

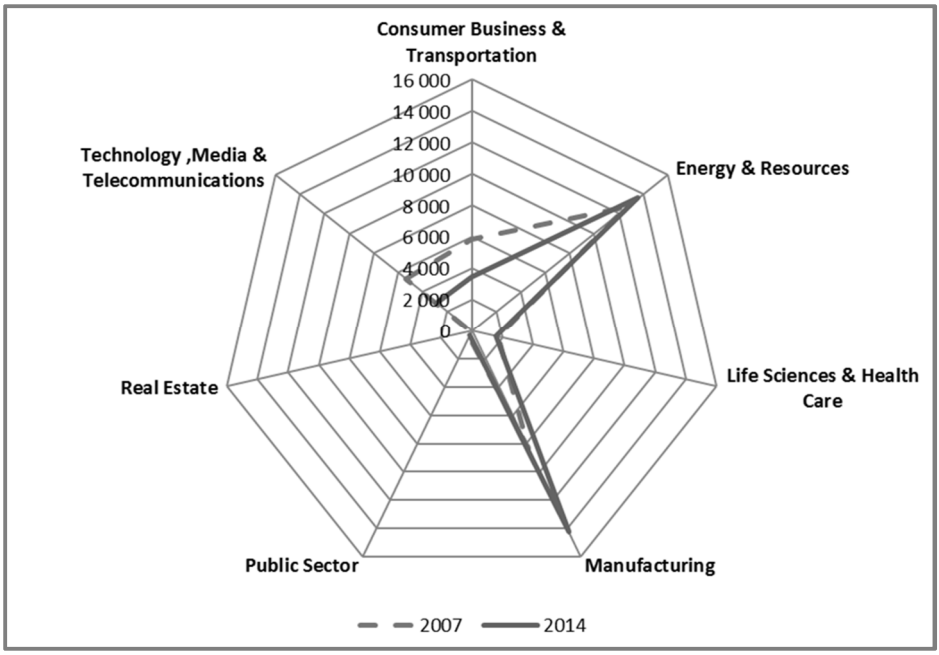

Figure 9.: Changes in the amount invested between 2007 and 2014

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Table 4.: The main inverstors in 2007

Ranking 2007	**Company name**	**Long-term assets** (mEUR)
35	GE Hungary	3 979
6	Audi Hungária	1 509
158	BorsodChem	996
104	Tiszai Vegyi Kombinát (cons.)	591
52	Suzuki	508
147	Dunaferr Group	468
137	Alcoa-Köfém	179

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Table 5.: The main inverstors in 2014

Ranking 2014	Company name	Long-term assets (mEUR)
20	GE Infrastructure CEE (cons.)	6 267
16	AUDI Hungaria Motor	3 781
123	BorsodChem	1 361
74	Mercedes-Benz Manufacturing Hungary	789
190	ISD Dunaferr	455
128	TVK	376
109	Magyar Suzuki	368

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Number of employees

In the case of the number of employees, we see that Public Sector is overrepresented among the companies – one single company with 36 429 employees, while other industries have much less – Consumer Business & Transportation an average of 17 769, Technology, Media & Telecommunications 8 536, Energy & Resources 3 554 employees in 2007. In 2014 Consumer Business & Transportation had 1 628, Energy & Resources 6 442 (mainly caused by the growth of MOL Hungary, with an increase of 13 000 employees).

In overall we can see a huge decrease in employee numbers due to the financial crisis, mainly effecting the domestic companies (a reduction by 51 754 people). But the effects were milder with regards to the international companies: there was a growth of 10 826 employees.

Table 6.: Number of employees in 2007

Foreign=1 /Domestic=0	Industry	Count of Company name	Sum of size (person) 2007
0	Consumer Business & Transportation	3	53 307
	Energy & Resources	7	24 876
	Manufacturing	1	1 187
	Technology, Media & Telecommunications	1	8 536
	Public Sector	1	36 429
	Real Estate	1	
0 Total		*14*	*124 335*
1	Consumer Business & Transportation	7	43 957
	Energy & Resources	4	587
	Life Sciences & Health Care	2	11 689
	Manufacturing	7	28 632
	Technology, Media & Telecommunications	7	20 736
1 Total		*27*	*105 601*
N/A	Energy & Resources	2	1 200
	Life Sciences & Health Care	3	3 953
	Manufacturing	4	15 187
N/A Total		*9*	*20 34*
Grand Total		***50***	***250 275***

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

Table 7.: Number of employees in 2014

Foreign=1 /Domestic=0	Industry	Count of Company name	Sum of size (person) 2007
0	Consumer Business & Transportation	1	1 628
	Energy & Resources	6	38 656
	Manufacturing	1	0
	PS	1	32 297
0 Total		*9*	*72 581*
1	Consumer Business & Transportation	6	49 514
	Energy & Resources	8	3 360
	Life Sciences & Health Care	3	7 326
	Manufacturing	10	39 449
	Technology, Media & Telecommunications	3	16 778
1 Total		*30*	*116 427*
N/A	Consumer Business & Transportation	3	1 421
	Energy & Resources	2	605
	Life Sciences & Health Care	2	81
	Manufacturing	4	12 036
N/A Total		*11*	*14 143*
Grand Total		***50***	***203 151***

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

There can be several major causes behind this sequence.

One is the process identified by *Muraközy* (2012), who stated that currently all countries in Central Europe are now going through a period of centralization again. This means, that the scale of the public sector is increasing, the state intervenes into the economy to a higher and higher extent, trying to minimize the unemployment rate. (General Common Employment Program, etc.). This is taking up more and more people, who were laid off from the competitive sphere, but those companies operating in the Public Sphere are just not generating big enough revenues to be represented among Top 50 companies.

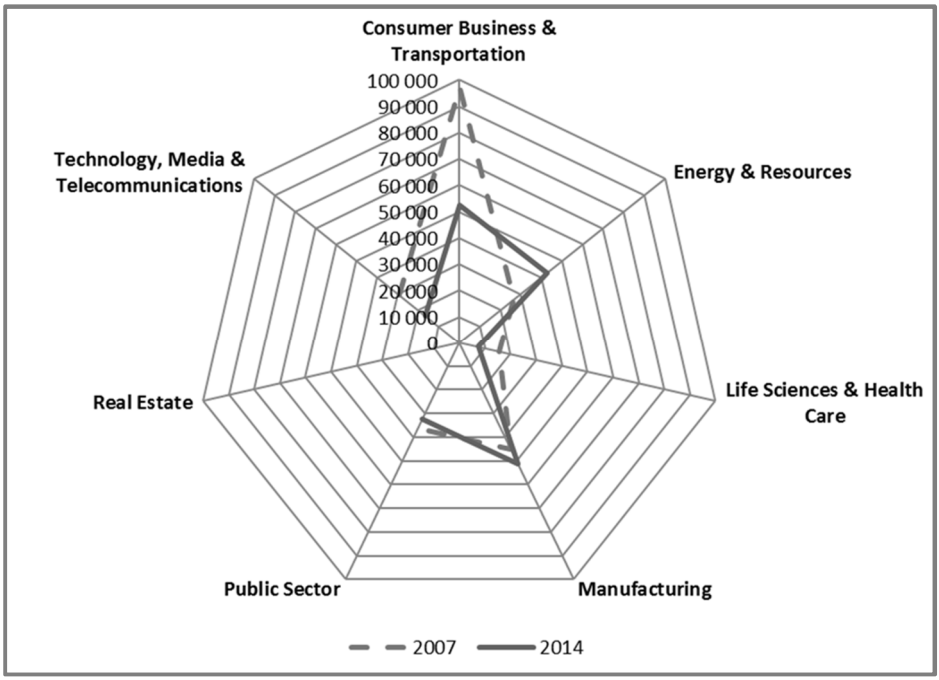

Figure 10.: Changes in employee numbers

Source: Own calculations based on Deloitte (2007) and Deloitte (2014)

The other reason behind these processes can be the global crisis affecting several countries, worldwide. The companies tried to increase their profits during the Global Crisis, which could have been done from two sides: either increasing the revenue or minimizing costs.

$$\text{Profit} = \text{Revenue} - \text{costs} = \text{quantity} * \text{price} - \text{costs}$$

Because sold quantity and prices couldn't be increased anymore, they decided to focus on cost reduction. According to *Chang* (2011), due to the ineffective negotiations of trade unions, there are huge differences between the salaries provided in each country. Therefore, a lot of build down in the number of employees started in the Western European region, due to higher salaries, and workload was outsourced to cheaper countries: either to Asia, or Eastern European countries. This caused several SSC (Shared Services Centers) to be established in Hungary, which also absorbed lot of people.

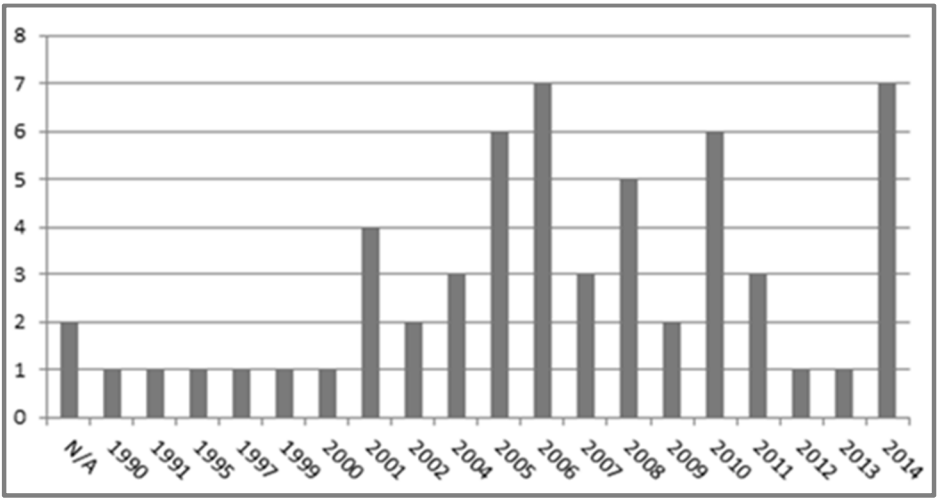

Figure 11.: The number of SSC-s established by yearly breakdown

Source: Own calculations

The SSCs have been established in the following industries: mainly in the Information Technology and Services, followed by the Financial services, Chemistry, Outsourcing/Offshoring Industrial and Telecommunications production sectors.

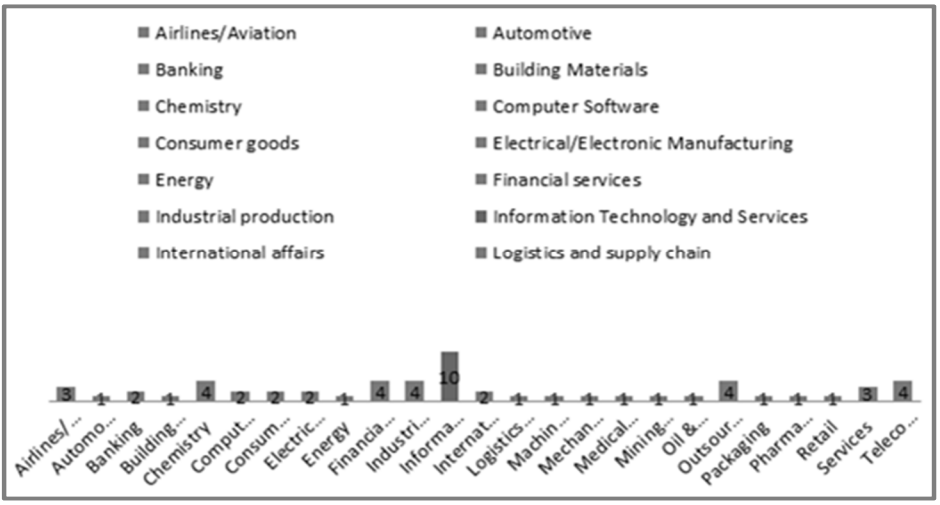

Figure 12.: The number of SSC-s established by industrial breakdown

Source: Own calculations

Conclusions

From the analysis it can be established that there were significant changes in the list of Top 50 Hungarian companies from year 2007 to 2014. Although the sample was limited, it still represented the general trends of the Hungarian economy. The most unfavorable effect materialized in the Technology & Telecommunications sector, while in the same time, positive tendencies were observed in the Consumer Business industry. A split with regards to the ownership of the companies can also be noted: domestic-owned companies mainly sell for the domestic market, while foreign-owned companies make four times as much revenue in exports. Centralization as well as cost cuts led to the establishment of SSCs in Hungary, mainly in the IT and Financial sectors. As a further research, it would be worth performing the same analyses on a larger sample of companies as well to see if our findings could be supported based on that population also.

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