

THE SUSTAINABILITY OF SMES IN ROMANIA IN THE ECONOMIC CRISIS CONTEXT: A REGIONAL APPROACH

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ABSTRACT

This paper studies the impact of the crisis on small and medium-sized independent Romanian enterprises. The focus on this category of companies is based on the fact that the number of independent SMEs is an indicator of entrepreneurial development in a country or region. The economic situation is captured by four indicators: turnover, net income, profit margin, and labor productivity. The analysis is performed separately on the eight regions of Romania, on a sample of 618 companies. The article used data available in Orbis database for all SMEs classified as independent, with more than one employee.

KEYWORDS: *SMEs, economic crisis, turnover, net income, labor productivity*

JEL CLASSIFICATION: *M20, L25*

1. INTRODUCTION

According to European Commission (2005), small and medium sized enterprises (SMEs) are defined „as enterprises which employ fewer than 250 persons, and whose annual turnover does not exceed 50 million euro or annual balance sheet total does not exceed 43 million euro”. The importance of SMEs is highlighted by the fact that they employ over 65% of the labor force in Romania and produce over 50% of the aggregate value added in 2012 (European Commission, 2013). In the same year, in the EU these firms employed 66.5% of the workforce and produced 57.6% of the value added (European Commission, Annual Report on European SMEs, 2013). Further evidence of the importance of SMEs for the whole EU is The Small Business Act adopted in 2008 (Commission of the European Communities, 2008) with the aim to create a favorable economic environment for SMEs and support their growth. According to Orbis database, in 2013 the active SMEs, with recent financial data available, had a share of 99.89% of all active companies (with recent financial data available) of Romania.

In this context, the objective of this paper is to study the impact of the crisis on small and medium size independent Romanian enterprises. Therefore, the reference literatures within the filed has been studied, a synthesis of it being displayed into the second chapter. The third part describes the methodology. The fourth part analyzes the evolution of SMEs in terms of four performance indicators: turnover, net income, profit margin, and labor productivity. The last section is for conclusions and discussions.

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2. LITERATURE REVIEW

A lot of articles and official documents addressing the importance of SMEs and the impact of the economic crisis on their performance. Nur et al. (2011) provided a synthesis of the literature reference on the assessment of business performance. They showed that profit and turnover are regular indicators of business performance. Jarvis et al. (2007) highlighted the complexity of the performance measurement process that is based on a wide range of quantitative and qualitative indicators. From the perspective that the owner-manager objective is profit maximization, they claim that the profit and profit margin are indicators of annual performance. But owner-managers are more interested in other indicators available more frequently (daily, weekly, monthly) as the turnover in relationship with the cash flow indicators (especially "the tangible,` countability 'of cash "), and the quality of inputs and outputs. Other studies using turnover, sales, profit and profit margin as indicators of performance are: Sharma and Dave (2011), Avlonitis and Salavou (2007), Wiklund and Shepherd (2003), and Becherer and Maurer (1997). The output and employment are indicators always present in the official reports. In the report on competitiveness, the European Commission (2014) showed that SMEs have been hit by the recent economic crisis, the output in 2013 was still far from the peak reached in early 2008 and that recovery was slower than in other areas of the world, such as Asia and the US. EU28 as a whole had recovered about 10 percent in 2014 compared to 2008 (European Competitiveness Report 2014, p.20). In the EU28, productivity in the manufacturing sector, measured as output per person employed, increased by about 0.4% during 2007-2012, but the annual change was fluctuating, with a collapse in the period 2008 - 2009. In their study on the contribution of SMEs to economic growth, Pislaru and Modoreanu (2012), made an analysis of the number of SMEs, the employment in SMEs, the turnover and the value added in the period 2003-2010, in Romania. The authors consider that the significant reduction in turnover reflects the impact of the economic crisis on the performance of SMEs. Labour productivity has been less affected by the crisis, suggesting a lower reduction of turnover compared to the reduction in the number of employees.

The above mentioned studies motivates the choice of indicators for assessing performance for SMEs in Romania during 2004 - 2013. The essential difference between this analysis and the mentioned literature refers to the sample, which was built in order to evaluate the performance of independent SMEs, generally nationally owned. All cited studies and all official documents are focused on all SMEs, whether or not they are related companies. In the case of the related companies the influence of the parent company, which may be large or very large, often multinational, cannot be isolated. Focus on independent SMEs of Romania was motivated by the fact that they ultimately reflect the Romanian entrepreneurship.

3. METHODOLOGY

The study uses data from Orbis database, covering 2004 - 2013 period. Of the total enterprises in Romania independent businesses that met the following criteria have been selected: turnover of at least zero and a maximum of 50 million, the total number of employees at least one and a maximum of 249 and total assets worth 43 million Euros maximum for each year of the whole period. Independent company is the company in which "there is no shareholder with more than 25% of direct or total ownership" (Orbis database, 2014). By applying these criteria, a sample of

618 firms have resulted. It should be noted that only 592 of the 618 companies have had strictly positive turnover throughout the period. Income and net turnover indicators were deflated, the consumer price index with base 2005 available on Eurostat being used for this purpose. Companies were divided by region, in order to analyze the impact of the crisis on each region. The selection criteria are more restrictive than the definition of the SMEs, but if they give up the indicator total assets, the difference is insignificant, meaning that a single company is added to the first selected sample. The evolution of indicators was analyzed using Microsoft Excel. The aggregate turnover and the aggregate net income were calculated as the sum of annual values available for companies. Annual aggregate profit margin was calculated as the simple arithmetic average of the profit margins of companies registered during the period. Annual labor productivity was calculated as turnover divided by the number of employees.

4. PERFORMANCE OF INDEPENDENT SMES FROM ROMANIA DURING 2004 - 2013

The economic crisis determined the great diminution of the SMEs turnover, as it could be seen from the following graph:

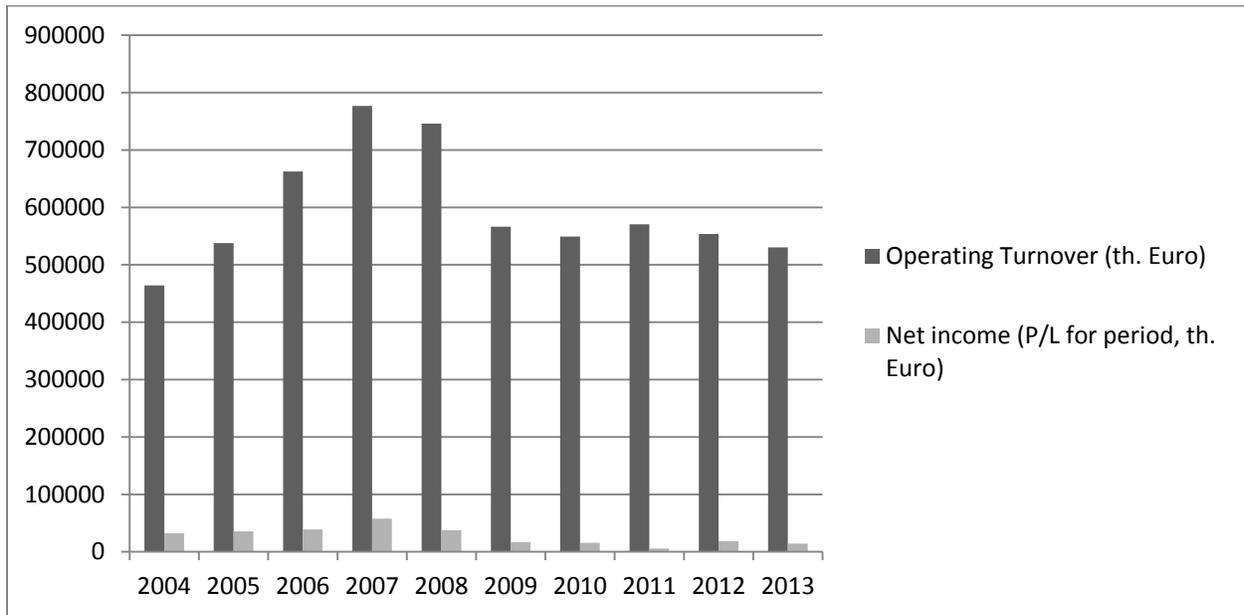


Figure 1. Operating Turnover and Net Income 2004 - 2013

Source: Orbis and Eurostat databases and author's calculations

Figure 1 emphasizes an increased turnover of almost 1.67 times in 2007 as compared to 2004, followed by a diminution of 24% in 2009 in comparison with 2008 and by a maintenance within an oscillation band of 530 - 570 millions up to year 2013. The decrease of the net profit was higher, of approximately 35% during the same interval. The independent SMEs from Romania are far from reaching the top of 2007, both in terms of turnover and net income. In addition, figure 1 proves that the crisis was sent into the independent SMEs from Romania as far back as 2008, even if the strong fall occurred in 2010. The increase of turnover in 2007 as compared to 2004 was accompanied by a slower increase of the labour productivity of approximately 62%,

which was reflected into the diminution of net profit margin of enterprises as it could be noticed into the following graph:

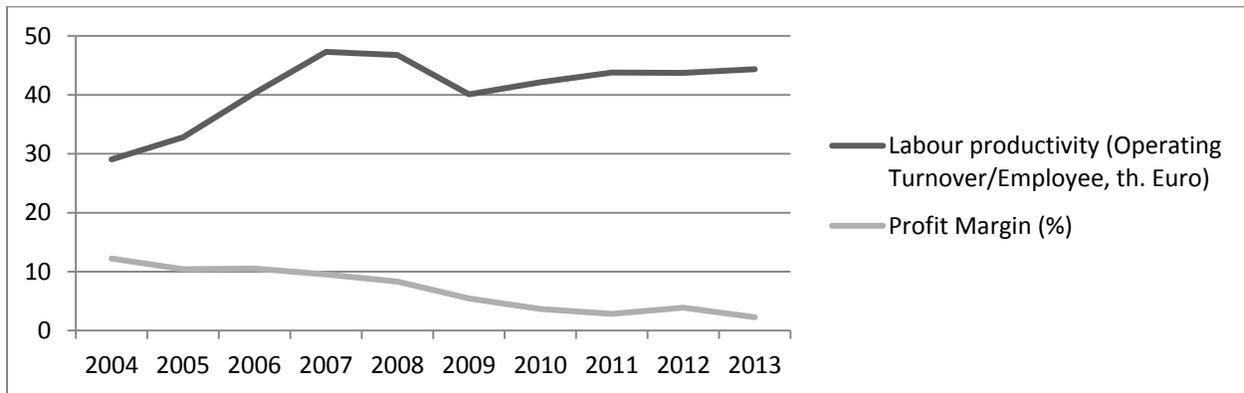


Figure 2. Labour productivity and Profit margin, 2004 - 2013

Source: Orbis and Eurostat databases, author's calculations

Figure 2 shows that the selected SMEs chose to increase the turnover and they did not have as their direct objective the profit margin maximization, given the fact that this margin had a permanent decreasing trend up to the year 2011. The increase of labour productivity did not have a positive impact on the profit margin, the possible explanations being the increase of the number of employees, the increase of the average wages per economy and the increase of production prices. If the average number of employees grew only by approximately 3% for the entities analyzed in 2007 as compared to 2004, in Romania the real wages were increased for the same period with approximately 43% and the industrial production price for domestic market with more than 25% (National Institute of Statistics, 2014).

The analysis of the regional dynamics points out important differences between the regions. Thus, the distribution by regions of the companies under analysis is the following:

Table 1. Number of SMEs by regions

	Bucuresti-Ilfov	Center	North-East	North-West	South-East	South-Muntenia	South-West-Oltenia	West
Number SMEs	147	120	49	87	73	49	35	58

Source: Orbis, 2014

Table 1 emphasizes, according to expectations, the fact that the highest number of enterprises is located into the most developed region from economic point of view, given that 40% out of the total of 618 companies function in only 2 development regions. These data imply a direct relationship between the development level of the region and the number of enterprises (which could be considered an indicator of the extent to which the enterprises are developed). The evolution of the operating turnover by regions is the following:

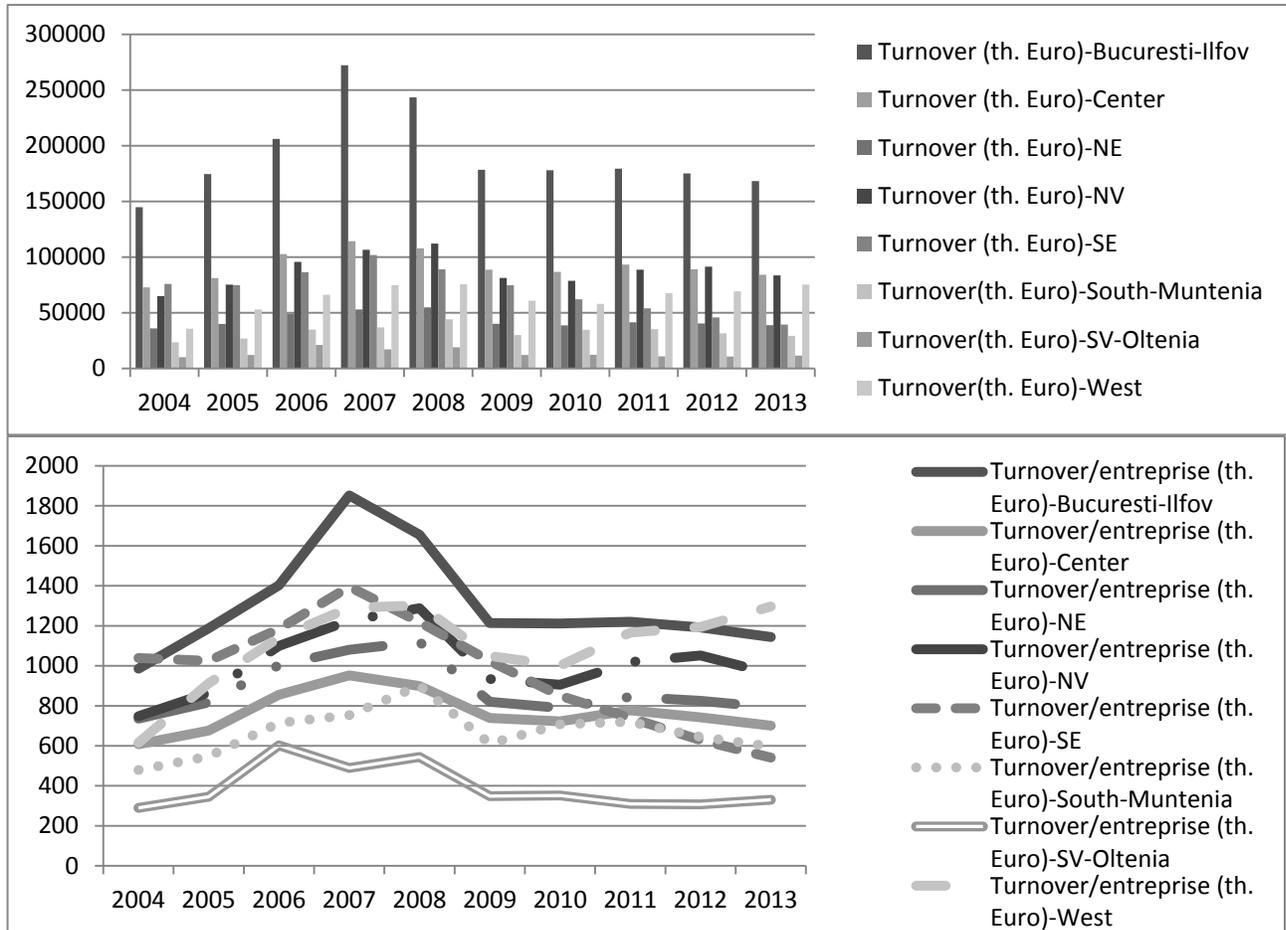


Figure 3. Operating Turnover by regions (total and per enterprise), 2004 - 2013

Source: Orbis and Eurostat databases and author's calculations

Figure 3 emphasizes the first place of the Bucharest-Ilfov region in terms of total turnover during the analyzed period. The least developed region in terms of total turnover is South-West-Oltenia, which registers the lowest results in respect of the turnover per enterprise, too. The above figure shows the different evolutions into the country regions after the year 2007. The crisis effect can be noticed only in 2009 into the regions of North-East, North-West, South-Muntenia, South-West-Oltenia, and West, given the fact that in 2008 the turnover increased. There are three regions, Bucharest-Ilfov, Center and North-East where the turnover has the same evolution after 2009. However, into the other five regions, the turnover evolution is different. The South-East region is permanently decreasing after 2008, the West region is permanently increasing after 2010, it succeeds in overtaking Bucharest-Ilfov in 2013 and recovering the turnover level from 2007, and the other regions have oscillating evolutions. The slight recovery from 2011 within most of the regions was not confirmed into the next two years, suggesting that the crisis was not over passed.

The regions are different also in terms of the net income evolution (profit and loss), as it could be seen into the following graph:

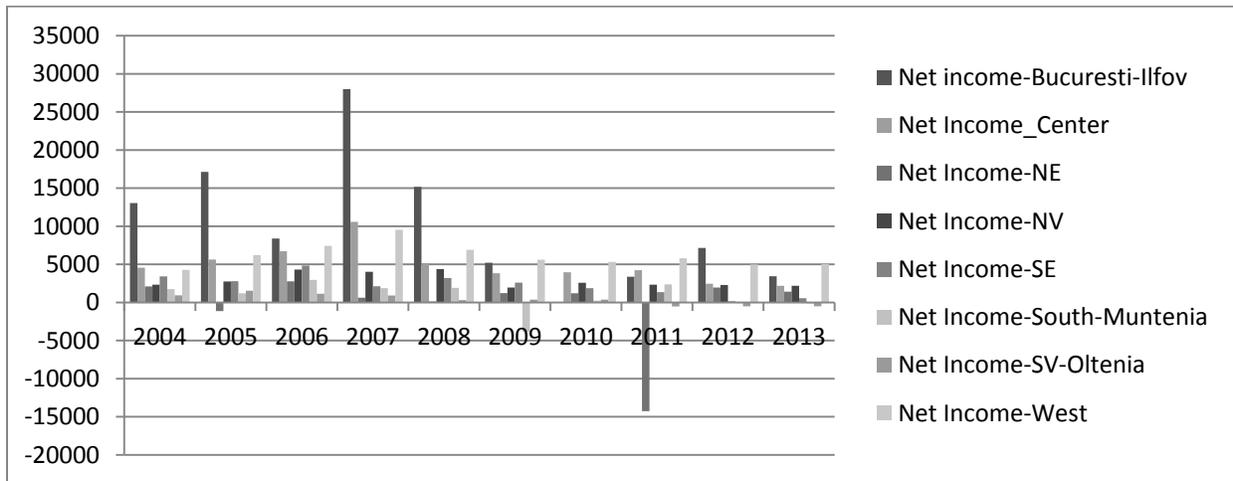


Figure 4. Net income by regions - total, 2004 - 2013

Source: Orbis database and author's calculations

Bucharest-Ilfov area was situated more above the other regions during the economic growth 2004 - 2008, but after 2009 the gap between the regions diminished significantly. The West region is permanently situated on the first place beginning with 2009, except the year 2012 when it is over passed by Bucharest-Ilfov. With 2.5 less enterprises than in Bucharest-Ilfov, the West region achieved a net income of 1.4 higher during 2009 – 2013. Five of the eight regions are characterized by the decrease of the net income starting with 2008, even if in two of them the turnover continued to rise during the first year of crisis. The superiority of the West region is better emphasized by the evolution of the net income per enterprise, as it follows:

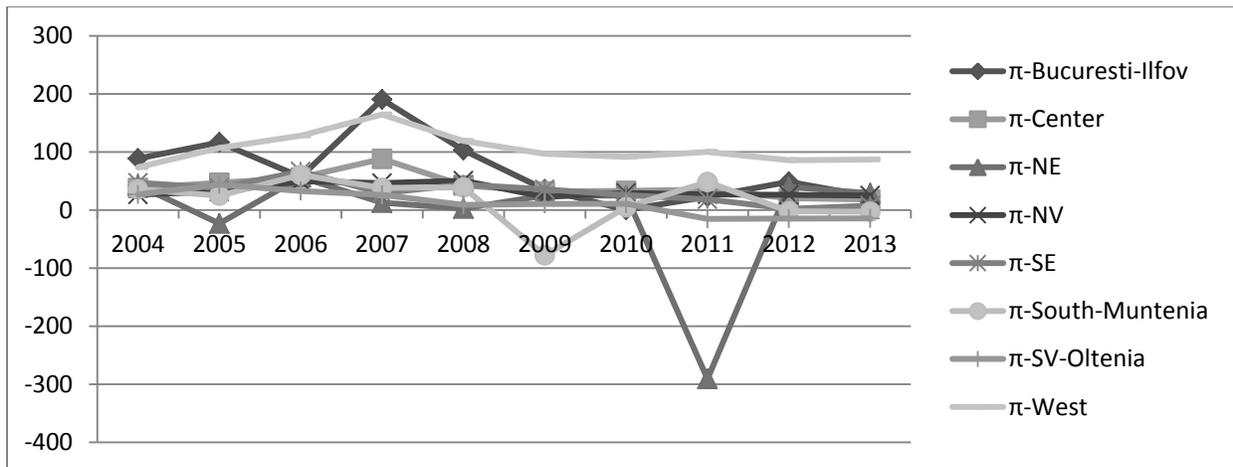


Figure 5. Net income per enterprise (π) by regions, 2004 - 2013

Source: Orbis and Eurostat databases and author's calculations

Figure 5 shows that Bucharest overpassed the West area only in 2007, West region being characterized by a permanently positive net income and remarkably stable after 2009 (the oscillation margin during the last five years has not overpassed 15%). In the first five years of the analyzed period, the West area was on the first place, followed by Bucharest-Ilfov and the South-East. Along the years of the crisis, the West remained on the first place but the Center area

arrived on the second place, and Bucharest-Ilfov fell on the third, on an equal footing with the North-West. The lowest performances came again with South-West-Oltenia, with a negative net income during the last three years. The same region had the lowest labour productivity as it could be noticed into figure 5:

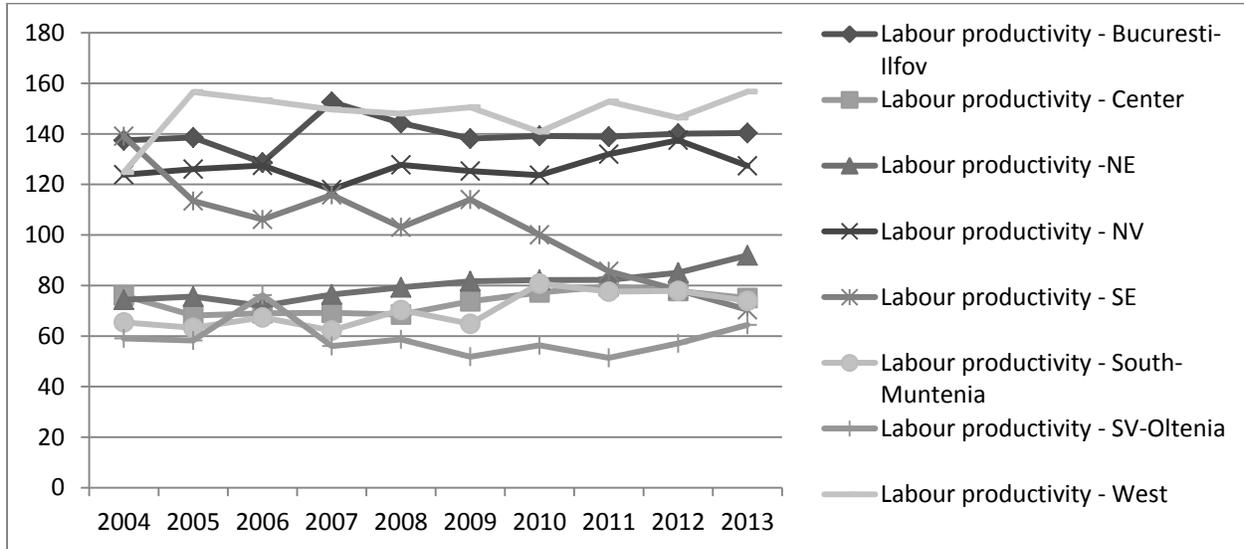


Figure 6. Labor productivity by regions, 2004 - 2013

Source: Orbis database and author's calculations

In terms of labour productivity, on the first three places the ranking was: the West region, Bucharest-Ilfov and North-West region during the analysed period. On average, during the ten years the labour productivity in the West area was over 2.5 times higher than the South-West region productivity. The high differences in respect of productivity between the first three regions and the rest of the country suggest the fact that these regions concentrate goods and service manufacturer companies with added value that is superior to the companies from the other regions.

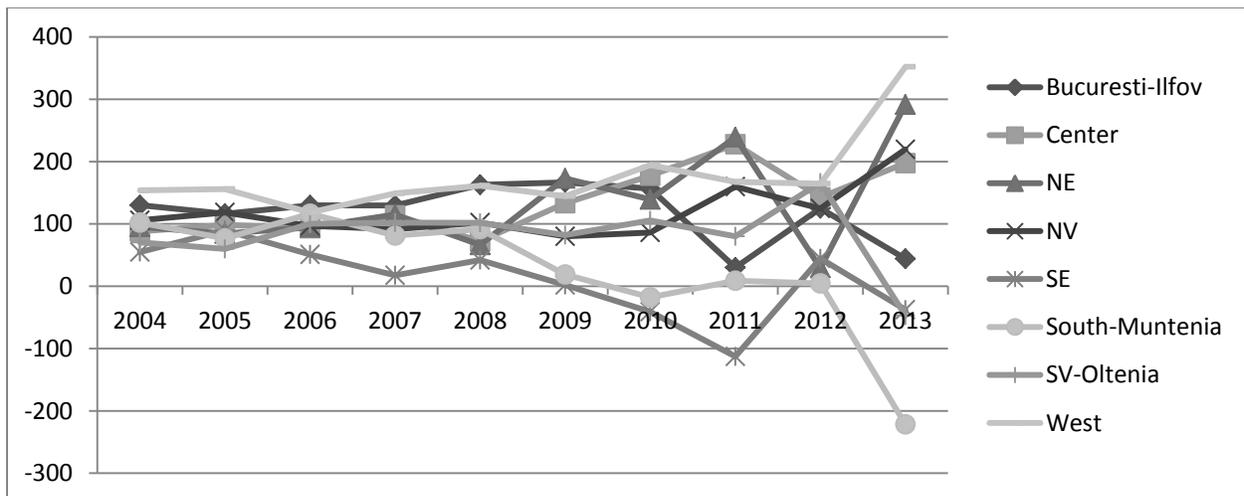


Figure 7. Profit margin by regions, 2004 - 2013

Source: Orbis database and author's calculations

The profit margin overall the region is calculated as a simple arithmetic average. In order to point out the differences between the regions, the national average per each year was calculated, and the profit margin of each region was graphically represented by reference to this average. Figure 7 shows that the lowest performance was recorded into the South-East region (on average), even if the labour productivity in this region was situated immediately under the raking up to the year 2011. This time the South West-Oltenia region is situated close to the average, and the West region is kept constantly on the first three places.

5. CONCLUSIONS

The objective of this paper was to point out the impact of crisis upon the performance of the independent SMEs from Romania, performance measured by four indicators: turnover, net income, profit margin, and labour productivity. The SMEs' turnover increased significantly in the first four years before the economic crisis. The crisis effects were differently felt by regions. Only in three of the eight regions the crisis was noticed in 2008, the rest of the regions entering into decline only in 2009. Following the crisis, the turnover, the net income and the profit margin decreased. The beginning of the crisis, i.e. the years 2008 - 2009, was characterized by a reduction of labour productivity. Later on, the productivity increased so that in 2013 five of eight regions had a superior productivity in comparison with the year 2008. Moreover, except the South-East region, all the other regions had a significant improvement of labour productivity in 2013 as compared to the year 2004, on average of approximately 1.53 times. At national level the loss of productivity generated by the crisis was of approximately 6.5 percents. The most performant region in Romania in terms of the analyzed indicators (except the profit margin) was the West region, and the lowest performant region was the South-West Oltenia.

The work confirms the conclusions of Jarvis et al.'s (2007) study, according to which the entrepreneurs are more interested in turnover than profit (and the profit margin). The increase of labour productivity is a positive signal for the long term viability of the analyzed SMEs.

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