

## PERFORMANCE OF THE TEXTILE INDUSTRY COMPANIES IN THE LIBEREC REGION

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### Abstract

The aim of the article is to evaluate performance of small and medium-sized companies in the textile industry located in the Liberec Region. The textile industry was chosen because of its importance in the Liberec Region in the past. The analysis is focused on the current performance of textile and clothing enterprises between the years 2013 and 2015. To do so, two different approaches are used. The first approach is based on the traditional measurement of performance using the accounting profit or loss. The second approach uses modern techniques, namely the Economic Value Added ratio (EVA). In both cases, the development of the values of both indicators is analysed over time. The research confirmed quite a substantial difference when measuring performance using the above mentioned approaches.

### Keywords

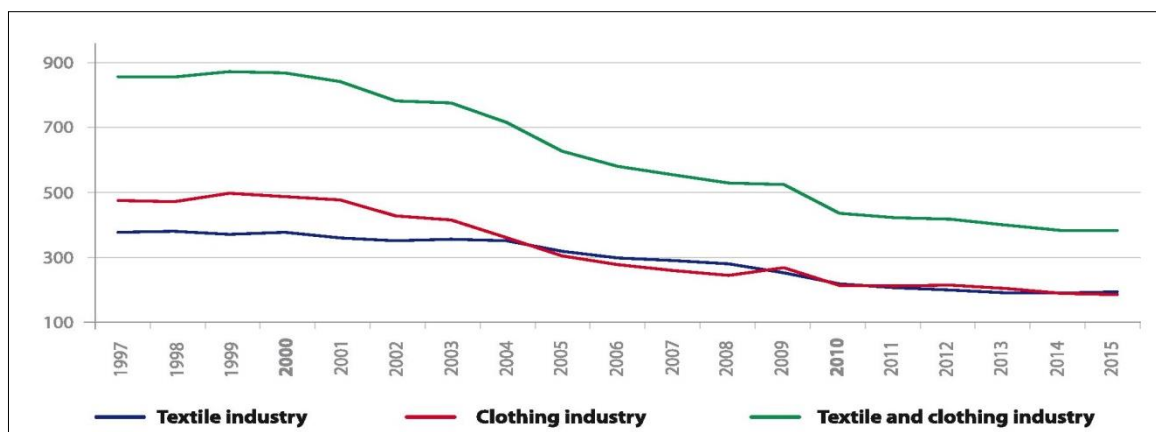
Accounting profit; Economic profit; EVA ratio; Textile industry.

### Introduction

The most important person influencing the development of the textile industry in the Liberec region from the 1830s onwards was Johann Liebieg. After the Second World War, the textile company Textilana was founded in Liberec. In addition, other companies were located in the region, such as Bytex producing carpets, Retex processing waste textile or Hedva producing silk mixed fabrics. At the end of the 1980s the textile industry was one of the most important industries in Czechoslovakia and Liberec itself was a town with the highest number of employees working in textile companies.

After the Velvet Revolution, the textile industry was restructured, which was characterized by changes in the quantity of output, number of companies or the structure and quality of products. The restructuring can be presented by a number of companies operating in the industry between 1997 and 2015 (see Fig 1).

The current textile industry is oriented mostly on the automotive industry. It provides supplies of textiles designed for noise isolation, fabric car seats, textile fills for the interior of vehicles, etc. Other promising branches are focused on geotextiles, fabrics for the construction industry, the application of nanofibers (filters, textiles for healthcare). In the year 2015 there were 184 textile enterprises and 1390 clothing enterprises registered in the Liberec region.



Source: [1]

**Fig. 1:** The development of textile and clothing enterprises in the Czech Republic between 1997 and 2015

## 1 Company Performance

Company performance is the concept of an abstract character, which is relatively often characterized in the course of time but its definitions and ratios used for its measurement change. As a basic approach used in this article, the measurement of performance from a financial perspective was chosen.

Kislingerová [2] defines performance as an ability of an entity to achieve certain results that are based on certain criteria and can be compared with the results of other entities. Company performance from the theoretical point of view is analysed, for example by Brabec [3], Pavelková and Knápková [4], Neumaierová and Neumaier [5]. On the company level, financial performance can be measured using the accounting profit or by calculating the value of a company for external users with the help of the economic profit [6].

### 1.1 Traditional Concept of Performance – Accounting Profit or Loss

Based on certain rules and conventions (national or international legislation), the accounting profit is expressed as the difference between the income and the expenses of a company, whereas profit means a positive result and loss a negative one. Income is usually defined as increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants. Expenses, on the other hand, are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

According to Bokšová [7], the accounting profit or loss is not only a measurement of a company performance but it is also a resource for financing company activities. Although accounting profit is a sophisticated and methodically described measure used in all accounting systems, there are some areas that can be influenced by a subjective approach of accounting entities. These areas include, for example, depreciation and amortization, impairment of assets, provisions, measurement of own inventories or definition of long lived assets. Further issues concerning accounting profit or loss, as well as pros and cons of this approach, are analysed by Hasprová [8].

In practice, as pointed out by Pavelková a Knápková [4], companies can disclose different modification of accounting profit or loss in their financial statements. From the widest to the narrowest approach, the following ones can be used: Earnings Before Interest, Taxes,

Depreciation and Amortisation (EBITDA), Earnings Before Interest and Taxes (EBIT), Earnings Before Taxes (EBT) and Earnings After Taxes (EAT). When using the above mentioned phenomena for measuring company performance, the possible influence of different depreciation, amortization, interest, as well as taxes has to be taken into consideration.

Measuring company performance differs by the income and expenses incorporated in its calculation. Czech accounting legislation prefers disclosing items on the form over content principle. This can lead to inaccurate disclosure of profit and loss. The content of income statement is regulated by the Regulation No. 500/2002 Collection of Law [9]. It embodies profit and loss from operating and financial activities and it also contains profit and loss before and after taxation.

## 1.2 Economic Approach to Profit

According to Hasprová [8], economic profit is a well-known phenomenon. There are several ways of its calculation. The most important as well as the most often used one is the Economic Value Added (EVA). According to Kubíčková and Jindřichovská [6], the EVA ratio is the best available tool for measuring economic profit. Generally speaking, the EVA ratio represents the economic profit generated by a company after reimbursement of all costs including also cost of capital.

In practice, the EVA ratio is calculated based on the data disclosed in financial statements. The accounting profit or loss is transformed into the economic profit. According to Mařík and Maříková [10], this procedure contains about 164 changes, which are the intellectual property of the creators and developers of Economic Value Added (EVA) Joel M. Stern and G. Bennett Stewart III (within the Stern Value Management, formerly Stern Stewart & Co). As this ratio is based on financial statements prepared according to US GAAP, therefore it cannot be directly used in the Czech Republic. To apply this ratio in the Czech Republic, two different approaches are used. The first approach has been presented for example by Mařík and Maříková [10] or Pavelková and Knápková [4]. The second approach includes the calculation developed by Neumaierová and Neumaier [5], which was modified by the Czech Ministry of Industry and Trade.

### 1.2.1 The calculation of the EVA ratio – the Neumaier's approach

As the transformation of accounting profit into the economic one is neither clear nor simple, Neumaierová and Neumaier [5] suggest that its calculation according to the Formula (1) is more transparent for Czech companies. The same methodology is also used by the Czech Ministry of Industry and Trade [11].

$$EVA = (ROE - r_e) \cdot Equity \quad (1)$$

where:

$(ROE - r_e)$  = a spread, which represents the influence of company capital structure;  
a company creates value only if the spread is positive;

$r_e$  = cost of equity,

$ROE$  = Return on Equity.

This calculation seems to be quite simple but the problem lies in the calculation of the cost of equity  $r_e$ . To solve this problem, the INFA model is applied. This model is able to measure both short- and long-term financial performance. Neumaierová and Neumaier (2002) united the most important ratios with the calculation of risk margins that increase the risk-free rate. This calculation was made assuming constant Weighted Average Cost of Capital (WACC).

On the other hand, the  $r_e$  does change if the capital structure is changing. The  $r_e$  can be calculated with the help of Formula (2).

$$r_e = r_f + r_{company} + r_{finstr} + r_{finstab} + r_{la} \quad (2)$$

where:

- $r_f$  = risk-free rate,
- $r_{company}$  = premium for business risk,
- $r_{finstr}$  = premium for the risk arising from the capital structure,
- $r_{finstab}$  = premium for financial stability risk,
- $r_{la}$  = premium for the insufficient liquidity of the share.

The amount of the above mentioned premiums is difficult to determine. The risk-free rates are expressed by the Czech Ministry of Industry and Trade as the Yield of 10-year government bonds. These rates for the analysed period are presented in Tab. 1.

**Tab. 1:** Risk-free rate

| Year                     | 2013  | 2014  | 2015  |
|--------------------------|-------|-------|-------|
| Risk-free rate ( $r_f$ ) | 2.26% | 1.58% | 0.58% |

Source: Own elaboration according to [11]

The premium for financial stability risk is dependent on the liquidity, namely on the current ratio (L3). After that, current ratio is compared with quick ratio (L2) and cash ratio (L1). Although these ratios should be calculated for each industry, for simplicity's sake the Czech Ministry of Industry and Trade [11] suggest the cash liquidity equal to 1 and the quick ratio equal to 2.5.

- If  $L3 \leq L1$  then  $r_{finstab} = 10\%$ ,
- if  $L3 \geq L2$  then  $r_{finstab} = 0\%$ ,
- if  $L1 < L3 < L2$  then  $r_{finstab}$  is calculated using Formula (3).

$$r_{finstab} = (L2 - L3)^2 / (L2 - L1)^2 \cdot 0.1 \quad (3)$$

The premium for the insufficient liquidity of the share is calculated as a sum of the following resources: equity, bank loans and bonds, i.e. Used Resources (UR).

- If  $UR \leq 100$  million CZK then  $r_{la} = 5\%$ ,
- if  $UR \geq 3$  billion CZK then  $r_{la} = 0\%$ ,
- if  $100 \text{ million CZK} < UR < 3 \text{ billion CZK}$  then  $r_{la}$  is calculated using Formula (4).

$$r_{la} = (3 - UR)^2 / 168.2 \quad (4)$$

UR in Formula (4) is expressed in billion CZK.

The premium for business risk is connected with the Return on Assets (ROA). The amount of ROA is compared with  $X_1$  ratio, which is calculated using Formula (5).

$$X_1 = UR / TA \cdot r_d \quad (5)$$

where:

- TA = total assets
- $r_d$  = real or estimated interest rate of debt.

If  $ROA > X_1$  then  $r_{company} = \text{minimum } r_{company}$ ,  
 if  $ROA < 0$  then  $r_{company} = 10\%$ ,  
 if  $0 < ROA < X_1$  then  $r_{company}$  is calculated using Formula (6)

$$r_{company} = (X_1 - ROA)^2 / (X_1)^2 \cdot 0.1 \quad (6)$$

The minimum amount of  $r_{company}$  is dependent on the particular industry. The Czech Ministry of Industry and Trade recommends using average values that are shown in Tab. 2.

**Tab. 2:** Minimum premium for business risk

|                          | 2013  | 2014  | 2015  |
|--------------------------|-------|-------|-------|
| <b>Textile industry</b>  | 2.54% | 2.65% | 2.65% |
| <b>Clothing industry</b> | 3.00% | 3.00% | 3.00% |

Source: Own elaboration according to MPO (2016).

The premium for the risk arising from the capital structure is calculated according to the Formula (7). The own calculation of  $r_e$  and WACC is shown in Formulas (8) and (9).

$$r_{finstr} = r_e - WACC \quad (7)$$

$$WACC = r_f + r_{company} + r_{finstab} + r_{la} \quad (8)$$

$$r_e = WACC \cdot UR / TA - EAT / EBT \cdot r_d \cdot (UR / TA - EQUITY / TA) / (EQUITY / TA) \quad (9)$$

If  $r_e = WACC$  then  $r_{finstr} = 0\%$ ,  
 if  $r_e - WACC > 10\%$  then  $r_{finstr} = \text{max. } 10\%$ .

## 2 Research Objectives

The aim of the article is to evaluate performance of small and medium-sized companies in the textile industry located in the Liberec Region. To do so, two different approaches are used. The first approach analyses company performance using the accounting profit or loss. The second approach uses the Economic Value Added ratio (EVA). In both cases, the development of the values of both indicators is analysed between the years 2013 and 2015.

Based on the above mentioned issues the following research question was set:

- Is there a difference in measuring performance of selected companies by using the two above mentioned approaches, and if so, how big is the difference?

## 3 Methodology

Based on the review of relevant scientific literature, the goals were achieved by descriptive research methods. As mentioned above, the research deals with two different approaches of measuring company performance. This analysis was performed using a research sample obtained with the help of the Magnus Web database containing data of entities located in the Czech Republic. The research sample was limited to companies operating in the Liberec Region, which met the following criteria: legal entity, economically active company, small and medium-sized enterprises operating in the textile and clothing industry. For determining the size of companies, the criteria set by the Act No. 563/1991 Coll., Act on Accounting valid from 1<sup>st</sup> of January 2016 were used. On 1<sup>st</sup> of March 2017 the above mentioned criteria were met by 161 companies. But only 22 of them published complete financial data between the years 2013 and 2015. The year 2016 was not included into the analysis because the data were

not available. The key characteristics describing the selected companies, as requested by the Act No. 563/1991 Coll., Act on Accounting, are shown in Tab. 3.

**Tab. 3:** Selected textile and clothing companies in the Liberec region in 2015

| Company                    | Number of Employees. | Total Assets in CZK | Turnover in CZK |
|----------------------------|----------------------|---------------------|-----------------|
| ARIES                      | 110                  | 112,634,000         | 27,091,000      |
| BOHEMIA - FASHION          | 31                   | 8,013,000           | 9,899,000       |
| CALEDON textile            | 11                   | 34,123,000          | 70,376,000      |
| CLIQUEO                    | 3                    | 454,000             | 1,034,000       |
| Damino CZ                  | 171                  | 38,627,000          | 95,250,000      |
| DIMATEX CS                 | 25                   | 16,983,000          | 50,837,000      |
| ECE Group                  | 28                   | 32,358,000          | 46,512,000      |
| Hansa-textil               | 16                   | 10,437,000          | 23,889,000      |
| Hoftex Liberec             | 2                    | 50,530,000          | 11,042,000      |
| Inter Flag                 | 50                   | 19,475,000          | 29,770,000      |
| KERBO                      | 1                    | 299,000             | 322,000         |
| L K V                      | 29                   | 16,181,000          | 22,703,000      |
| LIBEA                      | 9                    | 12,017,000          | 14,693,000      |
| LICOLOR                    | 27                   | 60,964,000          | 37,056,000      |
| Mehler Engineered Products | 157                  | 1,030,721,000       | 710,148,000     |
| Mirka SPORT                | 20                   | 4,731,000           | 13,166,000      |
| SEBATEX                    | 19                   | 6,689,000           | 5,091,000       |
| ŠÍČÍ RAJ                   | 5                    | 2,617,000           | 4,499,000       |
| TRANSIMO                   | 10                   | 1,905,000           | 3,352,000       |
| VESTIMENTO                 | 1                    | 174,000             | 519,000         |
| Výroba stuh - ELAS         | 93                   | 75,307,000          | 113,709,000     |
| W. Wülfig CZ               | 183                  | 96,384,000          | 105,288,000     |

Source: Own elaboration.

As shown in Tab. 3 the research sample contained 10 micro companies, 10 small companies and 2 medium-sized companies.

#### 4 Results of the Research

To compare the performance of selected companies, the accounting profit and the EVA ratios are used. To eliminate the effect of different size of the analysed companies, both of the performance measures were expressed on a relative basis. To do so, both of the absolute performance measures were divided by the number of employees working in the selected companies during the analysed time periods.

Firstly, Tab. 4 shows the accounting profit disclosed by the selected companies during the research period. As shown in the table, two of the companies achieved zero profit in the year 2013. This was caused by the fact that they started their business in that year. The fourth column of the table shows the average accounting profit of the analysed companies during the examined period. Based on the analysed data it can be stated that about a third of the analysed companies disclosed on average accounting loss during the examined period. On the other hand, about two thirds of the research sample disclosed on average accounting profit. Comparing the companies according to their average accounting profit per employee, the most profitable ones are Mehler Engineered Products followed by W. Wülfig CZ and ECE Group. On the negative side of the scale Hoftex Liberec, KERBO and CALEDON textile can

be found. The company Hoftex Liberec, which achieved the worst average loss, went into liquidation at the beginning of the year 2017.

**Tab. 4:** Accounting profit per employee in the years 2013 – 2015

| Company                    | Accounting profit (in CZK) |           |             | Average     | Ranking |
|----------------------------|----------------------------|-----------|-------------|-------------|---------|
|                            | 2013                       | 2014      | 2015        |             |         |
| ARIES                      | - 32,176                   | 27,010    | - 12,782    | - 5,983     | 17      |
| BOHEMIA - FASHION          | 0                          | 15,071    | 17,000      | 10,690      | 11      |
| CALEDON textile            | 0                          | - 595,818 | 228,273     | - 122,515   | 20      |
| CLIQUEO                    | - 2,000                    | - 60,000  | - 8,000     | - 23,333    | 18      |
| Damino CZ                  | 41,561                     | 7,352     | 142,450     | 63,788      | 4       |
| DIMATEX CS                 | 1,105                      | 59,042    | - 32,640    | 9,169       | 12      |
| ECE Group                  | 55,483                     | 80,036    | 73,000      | 69,506      | 3       |
| Hansa-textil               | - 99,813                   | - 101,563 | 63,688      | - 45,896    | 19      |
| Hoftex Liberec             | - 92,119                   | - 868,610 | - 2,546,500 | - 1,169,076 | 22      |
| Inter Flag                 | 11,340                     | 9,540     | 16,560      | 12,480      | 10      |
| KERBO                      | - 70,000                   | - 97,000  | - 554,000   | - 240,333   | 21      |
| L K V                      | 1,483                      | 35,862    | 29,793      | 22,379      | 7       |
| LIBEA                      | 95,000                     | - 889     | 27,778      | 40,630      | 5       |
| LICOLOR                    | 111,333                    | 49,815    | - 103,560   | 19,196      | 8       |
| Mehler Engineered Products | 806,151                    | 350,063   | 288,357     | 481,524     | 1       |
| Mirka SPORT                | 54,000                     | 20,316    | 24,600      | 32,972      | 6       |
| SEBATEX                    | 26,176                     | 15,765    | 2,632       | 14,858      | 9       |
| ŠICÍ RÁJ                   | 28,000                     | - 56,200  | 14,200      | - 4,667     | 16      |
| TRANSIMO                   | - 4,143                    | 6,200     | 2,800       | 1,619       | 15      |
| VESTIMENTO                 | - 23,333                   | - 20,000  | 64,000      | 6,889       | 14      |
| Výroba stuh - ELAS         | 22,259                     | 4,209     | - 763       | 8,568       | 13      |
| W. Wülfing CZ              | 36,609                     | 79,415    | 100,415     | 72,146      | 2       |

Source: Own elaboration.

When calculating the economic profit using the EVA ratio per employee, quite different results were found among the analyzed companies. As shown in Tab. 5, about 60% of the research sample achieved on average the negative economic profit. Moreover, the companies with positive economic profit achieved lower profit compared to the profit achieved by accounting profit measure. Comparing the companies according to their average EVA ratio per employee, the most profitable ones are again Mehler Engineered Products now followed by VESTIMENTO and W. Wülfing CZ. The less profitable companies according to this measure are again Hoftex Liberec, KERBO and now LICOLOR.

**Tab. 5:** EVA per employee in the years 2013 – 2015

| Company                    | EVA (in CZK) |           |             | Average     | Ranking |
|----------------------------|--------------|-----------|-------------|-------------|---------|
|                            | 2013         | 2014      | 2015        |             |         |
| ARIES                      | - 92,195     | - 34,601  | - 52,874    | - 59,890    | 16      |
| BOHEMIA - FASHION          | 10,528       | 23,852    | 11,138      | 15,173      | 4       |
| CALEDON textile            | - 6,815      | - 425,043 | 75,173      | - 118,895   | 18      |
| CLIQUEO                    | - 107,240    | - 41,685  | - 920       | - 49,948    | 15      |
| Damino CZ                  | 25,935       | - 3,406   | - 7,880     | 4,883       | 7       |
| DIMATEX CS                 | - 36,115     | 5,918     | - 96,215    | - 42,137    | 14      |
| ECE Group                  | - 19,698     | - 5,865   | - 7,194     | - 10,919    | 9       |
| Hansa-textil               | - 87,374     | - 53,124  | 52,811      | - 29,229    | 12      |
| Hoftex Liberec             | - 199,256    | - 700,963 | - 3,803,190 | - 1,567,803 | 22      |
| Inter Flag                 | - 19,622     | - 8,340   | - 8,965     | - 12,309    | 10      |
| KERBO                      | - 273,170    | - 261,720 | - 479,830   | - 338,240   | 21      |
| L K V                      | - 51,985     | - 11,128  | - 10,779    | - 24,631    | 11      |
| LIBEA                      | - 170,971    | - 184,811 | - 56,740    | - 137,507   | 19      |
| LICOLOR                    | - 92,219     | - 174,148 | - 417,631   | - 227,999   | 20      |
| Mehler Engineered Products | 292,142      | - 37,649  | - 98,475    | 52,006      | 1       |
| Mirka SPORT                | 34,078       | 3,173     | 7,717       | 14,989      | 5       |
| SEBATEX                    | 22,118       | 11,565    | 217         | 11,300      | 6       |
| ŠÍČÍ RÁJ                   | - 2,582      | - 73,596  | - 12,432    | - 29,537    | 13      |
| TRANSIMO                   | - 15,490     | 1,449     | - 2,133     | - 5,391     | 8       |
| VESTIMENTO                 | 11,760       | 7,830     | 87,490      | 35,693      | 2       |
| Výroba stuh - ELAS         | - 42,001     | - 76,817  | - 86,420    | - 68,413    | 17      |
| W. Wülfig CZ               | - 11,951     | 36,433    | 57,571      | 27,351      | 3       |

Source: Own elaboration.

To express the difference between the two analysed approaches used to measure company performance, Tab. 6 shows the difference between EVA per employee and accounting profit per employee during the research period. As shown in the fourth column, the analysed companies achieved, on average, worse results when using the EVA ratio instead of the accounting profit measure. In more detail, by 18 of the analysed companies the difference between EVA per employee and accounting profit per employee was negative and only by the remaining four companies the performance measured by the EVA per employee was higher. The average difference between EVA per employee and accounting profit per employee was 82,548.3 CZK. Analysing the change between the above mentioned performance measures, the biggest negative difference between the accounting profit per employee and the EVA ratio per employee was achieved by the Mehler Engineered Products, followed by Hoftex Liberec, LICOLOR and LIBEA. On the other hand, by the CALEDON textile, BOHEMIA - FASHION, Hansa-textil and VESTIMENTO the EVA ratio per employee was even higher than the accounting profit per employee. From the ranking point of view, the biggest change was by LIBEA and LICOLOR, which fall in the ranking by 14 respectively by 12 places. On the other hand, the biggest positive change in their ranking position was achieved by VESTIMENTO and BOHEMIA-FASHION, which moved upwards in the ranking by 12 respectively by 8 places.

**Tab. 6:** The difference between EVA per employee and accounting profit per employee in the years 2013 - 2015

| Company                    | EVA – Accounting profit (in CZK) |           |             | Average   | Ranking |
|----------------------------|----------------------------------|-----------|-------------|-----------|---------|
|                            | 2013                             | 2014      | 2015        |           |         |
| ARIES                      | - 60,018                         | - 61,610  | - 40,092    | - 53,907  | 9       |
| BOHEMIA - FASHION          | 10,528                           | 8,781     | -5,862      | 4,482     | 20      |
| CALEDON textile            | - 6,815                          | 170,775   | - 153,100   | 3,620     | 19      |
| CLIQUE                     | - 105,240                        | 18,315    | 7,080       | - 26,615  | 13      |
| Damino CZ                  | - 15,626                         | - 10,758  | - 150,330   | - 58,905  | 8       |
| DIMATEX CS                 | - 37,221                         | - 53,123  | - 63,575    | - 51,306  | 10      |
| ECE Group                  | - 75,180                         | - 85,901  | - 80,194    | - 80,425  | 6       |
| Hansa-textil               | 12,439                           | 48,438    | -10,877     | 16,667    | 21      |
| Hoftex Liberec             | - 107,138                        | 167,648   | - 1,256,690 | - 398,727 | 2       |
| Inter Flag                 | - 30,962                         | - 17,880  | - 25,525    | - 24,789  | 15      |
| KERBO                      | - 203,170                        | - 164,720 | 74,170      | - 97,907  | 5       |
| L K V                      | - 53,468                         | - 46,990  | - 40,572    | - 47,010  | 11      |
| LIBEA                      | - 265,971                        | - 183,922 | - 84,518    | - 178,137 | 4       |
| LICOLOR                    | - 203,552                        | - 223,963 | - 314,071   | - 247,195 | 3       |
| Mehler Engineered Products | - 514,009                        | - 387,712 | - 386,832   | - 429,518 | 1       |
| Mirka SPORT                | - 19,922                         | - 17,143  | - 16,883    | - 17,982  | 16      |
| SEBATEX                    | - 4,058                          | - 4,200   | - 2,415     | - 3,558   | 18      |
| ŠICÍ RÁJ                   | - 30,582                         | - 17,396  | - 26,632    | - 24,870  | 14      |
| TRANSIMO                   | - 11,347                         | - 4,751   | - 4,933     | - 7,010   | 17      |
| VESTIMENTO                 | 35,093                           | 27,830    | 23,490      | 28,804    | 22      |
| Výroba stuh - ELAS         | - 64,261                         | - 81,026  | - 85,657    | - 76,981  | 7       |
| W. Wülfing CZ              | - 48,560                         | - 42,982  | - 42,844    | - 44,795  | 12      |

Source: Own elaboration.

Other descriptive statistics characterizing the average difference between the EVA per employee and accounting profit per employee are shown in Tab. 7. As there are four significant outliers, the average difference between EVA per employee and accounting profit per employee has a negative skewness, which results in the situation that the average is lower than median and even lower than the lower quartile.

**Tab. 7:** Descriptive statistic of the average difference between EVA per employee and accounting profit per employee

| Statistic          | Value       |
|--------------------|-------------|
| Average            | - 82,548.3  |
| Standard deviation | 124,416.0   |
| Minimum            | - 429,518.0 |
| Lower quartile     | - 80,425.0  |
| Median             | - 45,902.7  |
| Upper quartile     | - 7,010.4   |
| Maximum            | 28,804.4    |
| Range              | 458,322.0   |

Source: Own elaboration.

## Conclusion

The research conducted by the Department of Finance and Accounting of the Faculty of Economics at the Technical University of Liberec suggested that Czech companies used both

accounting and modern measures when evaluating their performance. The accounting profit or loss was used by about 81.9% of companies surveyed, whereas the EVA ratio was used only by 22.3% of them. [8]. The reason might be a historical inertia, a relatively easy way of calculating the accounting profit or loss, a known informative value or other functions used by managing companies [12]. In addition, the accounting profit is the output of the compulsory accounting evidence used in the Czech Republic. Another reason may also be the negative difference between the EVA ratio and the accounting profit, as suggested in this article. To confirm this phenomenon in a more detail, the analysis should be extended to other sectors, regions and time periods.

When using these two approaches by measuring company performance, the following aspects have to be taken into account. Both of the measures use different methods to evaluate company performance and also the input data are not the same. The economic model adjusts accounting data in favour of the needs of investors. Therefore, company assets disclosed in financial statements are transformed into net operating assets that are used in core business activities. Similar adjustment is performed by the profit or loss which is transformed into the net operating profit. These transformations are quite substantial and their application is different in various companies, which may lead to less comparable results. As these adjustments are quite difficult and time-consuming, it could be the reason why most companies still use the accounting profit as a measure of their performance.

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## VÝKONNOST PODNIKŮ TEXTILNÍHO PRŮMYSLU V LIBERECKÉM KRAJI

Cílem článku je zhodnotit výkonnost malých a středních podniků textilního průmyslu se sídlem v Libereckém kraji. Textilní průmysl byl zvolen z důvodu jeho významného podílu na prosperitě Libereckého kraje v minulosti. Analýza je zaměřena na posouzení výkonnosti textilních a oděvních podniků v letech 2013 – 2015. Za tímto účelem jsou použity dvě metody hodnocení. Východiskem prvního přístupu stanovení výkonnosti je tradiční pojetí výkonnosti používající pro měření především účetní výsledek hospodaření. Druhý přístup je zaměřen na moderní pojetí výkonnosti, vycházející z kategorie ekonomického zisku. V obou případech je rovněž sledován vývoj hodnot obou sledovaných ukazatelů v čase. Výzkum potvrdil podstatný rozdíl ve výkonnosti podniků, jestliže se použijí výše uvedené přístupy k jejímu měření.

## DIE LEISTUNGSFÄHIGKEIT DER UNTERNEHMEN IN DER TEXTILINDUSTRIE IN DER REGION LIBREC

Ziel des Artikels ist es, die Leistungsfähigkeit kleiner und mittelständischer Unternehmen, die in der Textilindustrie tätig sind und ihren Sitz in dem Region Liberec haben, zu bewerten. Die Textilindustrie wurde wegen ihrer wichtigen Rolle in der Region Liberec in der Vergangenheit gewählt. Die Analyse konzentriert sich auf die Bewertung der Leistungsfähigkeit von Textil- und Bekleidungsfirmen in den Jahren 2013 – 2015. Zu diesem Zweck wurden zwei Methoden verwendet. Der Ausgangspunkt des ersten Ansatzes besteht in der traditionellen Messung der Leistungsfähigkeit, deren Grundlage der Buchgewinn ist. Der zweite Ansatz konzentriert sich auf die moderne Messung von Leistungsfähigkeit, die auf dem ökonomischen Gewinn basiert. In beiden Fällen wird die Entwicklung der Werte von beiden Indikatoren in der Zeit analysiert. Die Forschung hat einen wesentlichen Unterschied innerhalb des Niveaus der Leistungsfähigkeit, die auf Basis der oben genannten Ansätze gemessen wurde, bestätigt.

## EFEKTYWNOŚĆ PRZEDSIĘBIORSTW PRZEMYSŁU TEKSTYLNEGO W KRAJU LIBERECKIM

Artykuł ma na celu dokonanie oceny efektywności małych i średnich przedsiębiorstw przemysłu tekstylnego mających siedzibę na terenie kraju (regionu) libereckiego. Przemysł tekstylny wybrano dlatego, że w przeszłości miał znaczny udział w rozwoju regionu. Analiza dotyczy oceny efektywności przedsiębiorstw z branży włókienniczej i odzieżowej w latach 2013 – 2015. Do tego celu wykorzystano dwie metody oceny. Punktem wyjścia w ramach pierwszej metody jest tradycyjne podejście do efektywności oparte na pomiarze przede wszystkim księgowego wyniku finansowego. Druga metoda bazuje na nowoczesnym podejściu do efektywności, opartym na kategorii zysku ekonomicznego. W obu przypadkach analizowana jest także dynamika wartości obu analizowanych wskaźników. Badania potwierdziły istotną różnicę efektywności przedsiębiorstw, w zależności od zastosowania jednej czy drugiej metody badania.