#### ECONOMIC VALUE ADDED INDICATOR FOR LEADING FIRMS IN SLOVAKIAN AUTOMOTIVE

<sup>a</sup>DOMINIKA FALISOVÁ, <sup>b</sup>JOZEF GLOVA

Technical University of Košice, Letná 9, 04001 Košice, Slovak republic

email: adominika.falisova@tuke.sk, bjozef.glova@tuke.sk

Acknowledgement: We gratefully acknowledge the funding of this paper by the Slovak Grant Agency of the Ministry of Education of the Slovak Republic, and Slovak Academy of Sciences (VEGA), project No. 1/0673/21 on Analysis of Economic Perspectives of Industry 4.0 in Terms of the Impact of Intangibles on the Profitability and Market Value of Industrial Companies.

Abstract: The article deals with the modern financial performance indicator EVA of the three leading companies in the automotive industry in Slovakia: Volkswagen Slovakia, Kia Motors Slovakia, PCA Slovakia. Based on the previous studies conducted by various authors, no company in Slovakia paid sufficient attention to the modern EVA indicator. Therefore, the paper aims to calculate the Economic Value Added as a tool to increase the effectiveness of financial performance management in selected companies for 2019. Following this study, it can be said that although the calculation of the modern EVA indicator is more complex, companies should pay sufficient attention to it, as it is a management tool used to value the company and also takes into account value creation for owners. Based on the calculation, we found that all of the three main companies achieved positive values of this modern indicator. Based on this, we conclude that the companies produce value from the funds invested in them. It is important to note that these companies are foreign companies that have decided to invest in the automotive industry in Slovakia.

Keywords: Financial analysis; Financial performance; Modern indicators of financial performance; Economic Value Added.

#### 1 Introduction

Today's rapidly changing times are forcing companies to move forward, modernise individual processes and activities. One of the competitive advantages for companies in the current global environment is to increase financial performance and efficiency. The goal of business entities is to maximise market value or profit, and therefore if any company wants to achieve a positive financial result, it is necessary to pay a high degree of attention to financial performance management. It is crucial to deal with the analysis, development, and monitoring of performance in terms of its effectiveness, while the company's effective management is conditioned by current and relevant information. In recent years, there have been global changes, which also affect financial performance, financial indicators and evaluation. Companies thus face a large number of decisions aimed at maintaining a solid position in the market. Businesses are gradually moving from standard indicators and models of financial performance based on accounting profit to modern indicators and models based on the company's economic profit or market value.

The automotive industry has a strong tradition in Slovakia and has become the most critical industry and driving force of the Slovak economy. Over the last 20 years, it has been an essential source of foreign direct investment. Here are some reasons why these companies decided to invest in Slovakia: Political and economic stability, CEE leader in labour productivity, Cost-effective, skilled and educated labour force, Developed and constantly growing research and development centre and innovation network, Attractive investment incentives for the automotive industry, Well -developed infrastructure.

#### 2 Literature review

When searching the Web of Science database, the word "Economic Value Added" has been recorded since 1993, which roughly corresponds to the first mention of EVA in the publication of Stern Stewart in 1991 and its addition in 1994. The numbers clearly show a gradual increase in the publication output in this database, especially in areas such as Management, Economics and Business.

The first mention of EVA can be found in Stewart (1991). According to Stewart, EVA is a measure of a company's performance that has been developed to motivate managers to

increase shareholder value. Stewart (1994) also adds that the company believes that EVA is more persuasive than other performance indicators in driving stock prices, creating wealth and interpreting changes in shareholder wealth.

The author Brealey (2015) convinces that EVA measures mean "How many dollars a business is earning after deducting the cost of capital". In other words, the more assets a manager has to work with, the more excellent the opportunity to generate enormous EVA.

Based on O'Byrne (2016), a significant consideration in the application of EVA is the adjustment of a large number of accounting variables. However, EVA is widely used in different studies and can be applied in various areas like industry, education, tourism, IT, and others. EVA is a measure of operating performance as it balances the secondary measures (also known as value drivers) to maximise company value, and it is based on the basic rule that a company must produce, at least, as much as the return on investment. As McLaren (2005) mentioned, these capital costs (or the required rate of return) relate to both equity and debt. Just as creditors are entitled to the payment of their interest, shareholders are required to pay an adequate rate of return on invested capital to offset their risk.

According to Awan et al. (2014), EVA is a performance measure that intends to express the effective value creation in a firm, besides being one of the most efficient criteria for quantitative assessment of stock returns. There is a weak, positive correlation between EVA and returns, though the degree of association between ROA and returns has turned out to be stronger. Santos et al. (2018) claimed that the regression models showed that EVA & ROA are positive and significant regressors for our stock sample.

Deeswat (2010) said that net profit margin, return on assets, and return on equity relates to a company's stock price significantly, and through stock price, investors can observe how effective the company is. Nowadays, modern financial indicators such as EVA follow value-based management goals. Kyriazis & Anastassis (2007) showed that EVA, even though helpful as a performance evaluation tool, need not necessarily be more correlated with shareholder's value than established accounting variables. Rowland (2016) decomposed EVA equity, which is viewed as the strategical goal of a company, into partial indicators that can be incorporated into a company's tactical plan in the form of operative plan indicators.

Behera (2020) assumes that this method compares companyspecific earnings with required earnings or regular market earnings. According to a suggestion by Stewart in 1991, an adjustment to one identical factor of EVA may cause an imbalance in the comparative ability of earnings and regular market earnings, which can reduce accuracy. It is necessary to calculate the cost of capital and adjustments to the accounting profit in such a manner that year-to-year comparison measures the performance. For accurate EVA calculation, accounting earnings should be considered instead of adjusted operating earnings because accounting earnings explain the equity return and market value of equity better than adjusted net operational earnings. EVA is a method by which shareholders measure a company's profit after paying alternative costs of capital. The purpose of the application is critical when using the method and its calculation. Even the availability of data and the way of determining the cost of capital is an important aspect. It also depends on whether the goal is to determine an absolute or a relative value.

Claessens & Yurtoglu (2013) said that better corporate governance benefits firms through greater access to financing, lower cost of capital, better performance, higher competitiveness and more favourable treatment of all stakeholders. The following findings show how better corporate governance increases financial positions and also competitiveness:

- Khan et al. (2013) examined the relationship between corporate governance and the extent of corporate social responsibility (CSR). Their results suggest that although CSR disclosures generally have a negative association with managerial ownership, such a relationship becomes significant and positive for export-oriented industries.
- Liu et al. (2017) believe that the media can play a role in corporate governance by influencing the value of CEOs' human capital.
- Kalodimos (2017) found that the effect of internal governance on performance is potentially economically significant and, as such, increases competitiveness. However, it might be difficult to identify.
- Gompers et al. (2003) claim that firms with stronger shareholder rights have higher firm value growth and lower capital expenditures and, therefore, have much higher competitive sustainability.
- Brealey (2015) in his book provide a more practical view on shareholder value and state that "shareholder value depends on good investment decisions" and "on good financing decisions".
- 6. Rieg (2015) said that shareholder value could be an excellent management approach if it is used to its advantage, not as the sole indicator of value add. If not used properly, it may lead to short-term optimisation of cash flows to boost shareholder value while harming long-term investments.

Corporate governance has become increasingly important over the past 15 years. Meanwhile, shareholder value in the meantime has a somewhat negative touch in the sense of being short-term and capital focused only. It looks like EVA is the best known and often used measure applied by firms in recent years. Blendinger & Michalowski (2018) believe that EVA, on the one hand, is well-if not best-suited. But also, on the other hand, it has limitations due to its constraints.

Fernandez (2007) described the following groups comprising the most widely used company valuation

methods: balance sheet-based methods, income statement-based methods, mixed methods, and cash flow discounting-based methods. He said that the fundamental problem with these methods is that some are based solely on the balance sheet, others are based on the income statement, but none of them considers anything but historical data. According to his article, the most suitable method for valuing a company is to discount the expected future cash flows, as the value of a company's equity -assuming it continues to operate- arises from the company's capacity to generate cash (flows) for the equity's owners. He also presented the most common errors in valuations. There are the most common of them:

- 1. Using the historical industry beta.
- Using the wrong formula for levering and non-levering the beta
- The required market risk premium is equal to the historical equity premium.
- Debt to equity ratio used to calculate the WACC is different than the debt to equity ratio resulting from the valuation.
- Using the wrong formula for the WACC when the value of debt is not equal to its book value.
- 6. Not considering the country risk.
- Using arithmetic averages instead of geometric averages to assess growth.
- 8. Wrong concept of the optimal capital structure.
- 9. Considering that the ROE is the return to the shareholders.
- 10. A company has the same value for all buyers. (Fernandez, 2020)

Following Saheli et al. (2014), EVA, the most recent method of organisational performance evaluation, focus on the maximisation of shareholder wealth. It is an important indicator that can help investors in their decision-making and can create a competitive advantage for organisations. Economic value added

is the value created in excess of the required return of the firm's investors and can be used for evaluating the performance of firms and developing incentive schemes.

Based upon Kraus (2013), EVA is used ex-post for evaluation of the performance over the last reporting period. This method is based on a concept called residual income, which is equal to the annual accounting profit less the required return on capital employed, that is, an interest charge on the book value of assets.

According to Fernandez (2019), it is very important that a company identify the fundamental parameters that have the most influence on value creation. Obviously, each factor's importance will vary for the different business units.

Based on Costa et al. (2018), an alternative for the company would be the improvement of its management tools in order to improve the choice of your investments and projects. The alternative that the present work proposes is to analyse the EVA. The main objective of this indicator is to indicate whether the company is increasing its value since the subtraction of the cost of equity of operating profit allows the value at which the company is assessed to be analysed, remunerating the shareholder and whether or not this amount adds value to the partners.

Bassan & Martins (2016) point out that the use of EVA becomes a differential of the work compared to the others, since many use analysis methodologies based on financial performance measures and not focused on creating value for companies. Curadi (2017) convinced that EVA is a fundamental indicator to measure the company's real profitability. They still state that the tool provides an overview of investments for managers and investors that allows them to better assist in making strategic decisions in a corporate environment.

On the basis of Bruni (2008), this method allows executives to clearly assess whether the capital employed in a given project or company is being well spent. The method presented by EVA aims to improve the information provided by the accounting profit, which occurs through an accounting adjustment in which the opportunity cost of equity is deducted from the accounting profit. In addition to profit, it is important to compare this with the opportunity cost, which is the return that the partners expect for the capital invested in the operation.

Nowadays, the market is dynamic by reason of globalisation, competition and the pressure of incentives. In this market, a constant return on equity or a constant normal market return cannot be expected. Several studies have been conducted on EVA during the last three decades to examine its efficiency as a periodic performance measure:

- 1. Behera (2020) conducted a study on selected companies and compared the efficiency of EVA with accounting measures in explaining stock prices. The results showed that EVA maintained a strong association with the stock price and yielded incremental information content beyond that provided by other accounting measures.
- 2. Khan et al. (2013) conducted a study that considered samples selected from non-financial firms and found that EVA availed incremental information content beyond the information content given by earnings.
- 3. Kumar & Sharma (2011) reported, according to their studies, that EVA had incremental information content in addition to the information content of the earnings.

On the basis of Behera (2020) studies also have backed the idea that the required return changes because of changing inflation and a changing economy. Studies conducted on other valuation models indicated that valuation models under a changing required return better explain the market value of equities than a constant required return.

Shen et al. (2015) investigated the influence of the economic value-added on the value of the cash holdings of central state-owned enterprises (CSOE). They reported that EVA has some influence on the overinvestment of CSOE cash holdings and

significantly increases the value of CSOE cash holdings compared with the cash holdings of local state-owned enterprises. The more excellent value of CSOE cash holdings derives from underinvestment modification and overinvestment restraint. The value of cash holdings increases more for companies with better accounting performance. Economic value added policy increases CSOE efficiency.

Blendinger & Michalski (2018) shows how long-term value-added driven competitiveness is adopted by German corporations and how it can be measured. It explains and shows how different measures such as economic value added, return on equity, and others are calculated and how they correlate to show long-term value-added and, therefore, competitive differentiation. The article focused on which measures are used to quantify the competitive value addition and then shows the most used EVA measures. Also, the paper shows that ROCE correlates best with EVA and, in the absence of an EVA calculation, it is the best measure to represent value creation as a competitive differentiator.

Research by the authors Bluszcz & Kijewska (2016) focused on the company's strategy that concentrates on the growth of the company represented by EVA requires the identification of factors affecting the size of the EVA. The authors transformed EVA in such a way as to reveal the determinants affecting its value. The assumed three levels of disaggregation of EVA: the first level: EVA depends on the amount of invested capital (IC) and economic spread (EC), the second level: economic spread is expressed using the weighted average cost of Capital (WACC) and the return on invested capital (ROIC), the third level: takes into account the capital structure (wi), the cost of capital (ki), the profit margin (NOPAT/S) and invested capital turnover ratio (S/IC). In this way, the authors could indicate which factors and to what extent affected negatively and positively the change of EVA.

The aim of the article by Boonvorachote (2018) is to rank priority on companies' performance improvement for medium-sized and large-sized companies in Thailand: cost-efficiency seeking and value-added creation. Listed large-sized companies showed better performance than non-listed medium-sized companies in every measurement dimension, as they determined: larger company sizes, higher profitability and lower costs of capitals. In short-run, non-listed companies should aim for seeking cost efficiency from production and financial cost reduction. To enhance companies' value, companies' EVA increases by fixed asset turnover, profit margin, sales growth, and time interest earned. On the other hand, WACC is negatively related to EVA, which means that the companies with high EVA will have lower costs of capitals.

Based on an overview of the various authors on the EVA indicator, we come to the conclusion that Economic Value Added is an important indicator that can help investors in their decision-making, also can create competitive advantage for organisations. It might be a perfect instrument for the board of directors, supervisory board and management in combination with additional means and measures. Also, it is widely used in different studies and can be applied in various areas like industry, education, tourism, IT, etc. On the other hand, the authors who address this issue in-depth point to the fact that, despite the importance, the application of the EVA indicator in the financial management of the company is still underestimated.

# 3 The Possibilities to Apply EVA Methods to the Conditions in Slovakia

The aim of this article is to calculate the indicator of Economic Value Added as a tool of financial performance operating in the automotive industry based in Slovakia. For this reason, we decided to devote part of the literature review to previous research on the application of the EVA method to conditions in Slovakia.

The research study of Salaga et al. (2015) devoted themselves to modifying the method of calculating the EVA indicator under

the Slovak accounting legislation. Malichova et al. (2017) also emphasised the justification for the application of modern performance evaluation methods, including the EVA. These authors showed several variants of the calculation of EVA indicator. Mainly, they defined the possibilities to apply EVA methods to the conditions in Slovakia. Despite Daraban (2017) reported it is not very easy to quantify the EVA indicator correctly, it has been documented that the EVA method help to achieved sustainable performance in the long term.

On the basis of Salaga et al. (2015), in Slovakia, the economic profit is known in the theoretical sphere, where the possibilities of its usage are constantly debated. In financial practice, attention is paid to this indicator, usually only in financial analysis. The reasons are:

- 1. originate of the business management in traditional methods
- 2. construction of EVA,
- poorly developed capital market in Slovakia, because of the lack of the necessary data,
- the concept of maximum accounting profit and profitability were preferred for many years. Owners of the companies in Slovakia change their value orientation slowly.

The authors Cabinova et al. (2018) analyse the performance of Slovakia's spa sector over the years 2013-2017 based on the Economic Value Added and other modern performance measures. Results of the study pointed to a close interconnection between the dimension of performance measure EVA and efficiency.

The author Jankalova & Kurotova (2019) performed a research study in which EVA methodology has been applied to real-life corporate data and present a company's value operating in Slovakia. Also, the data including identification of limitations in measuring a company's value. This research discusses the link between the EVA's results and the company's Sustainable Value. The authors said that the EVA indicator combines all the essential components required to describe the economic situation of the company, and it is a tool for measuring the economic sustainability of a company and the most important thing, and the companies can see this as one form of innovation.

The main aim of the research conducted by the author Dvorakova & Faltejskova (2016) was to create an automotive industry company performance model in the context of customer satisfaction. Findings on the importance of customer satisfaction as moving forces of performance in relation to the EVA indicator. They applied the idea that the management of customer satisfaction lies in the identification of vital influencing attributes. Influencing these attributes through a number of activities, including quality improvement projects, leads to changes in customer expectations and perception and forms their satisfaction. The presented performance model is set in an environment that integrates Controlling, Balanced Scorecard and Activity Based Costing. The simulation model showed the capital intensity of automobile production. Moreover, the automobile is a product significantly tied to the life cycle. In today's global, technical and economic conditions, we should expect a shortening of this life cycle.

Previous studies conducted by the various authors from Slovakia and the Czech Republic show that no company in Slovakia has paid sufficient attention to the modern EVA indicator. In conclusion, although the modern EVA indicator is more complicated to calculate, companies should pay sufficient attention to it as it represents a management tool that is used to value the company and also takes into account the creation of value for owners.

### 4 The Methodology

The analytical part of the article is based on financial data of the three major companies in the Slovak automotive industry Volkswagen Slovakia, a.s., Kia Motors s.r.o. & PCA Slovakia, s.r.o. belonging to the statistical classification of economic

activities SK NACE Rev. 2, sector C- production, division 29, which deals with the production of motor vehicles, trailers and semi-trailers, namely subgroups 29.10 (manufacture of motor vehicles), 29.20 (manufacture of bodies (coachwork) for motor vehicles and manufacture of semi-trailers and trailers) and 29.30 (manufacture of parts and accessories for motor vehicles). Financial data of companies in the automotive industry were obtained from the Finstat database, as it provides financial data for a large number of companies. The critical period for our analysis was the years from 2008 to 2019 because available financial data were reported by companies in this period.

Based on an extensive analysis of professional publications dealing with the issue of financial performance using the EVA method, we found that a modern indicator of economic value added can be calculated in several ways. For this article, according to the availability of data, the following formula was chosen:

$$EVA = NOPAT - WACC \cdot C \tag{1}$$

where

NOPAT Net Operating Profit After Taxes WACC Weighted Average Cost of Capital

C Capital Invested

For calculating the value of the EVA indicator, it has been necessary to calculate the indicator Weighted Average Cost of Capital. The quantification of the WACC indicator expressed as follows:

$$WACC = R_e \frac{E}{E+D} + R_d \frac{D}{E+D}$$
 (2)

where

C Capital
Re Cost of Equity
E Equity
D Debt
Rd Cost of Debt

In order to quantify the value of the cost of equity, it is necessary to determine the values of all its parameters.

$$R_e = R_f + R_p \cdot \beta + R_s \tag{3}$$

where

Rf Risk-free rate of return Rp Market risk premium β Coefficient Beta Rs Specific risk premium

The first unknown in the formula is the risk-free rate of return Rf, and by this term, we mean the return brought to it by "risk-free" assets. It is essential to realise that "risk-free" investment is a relative term, and therefore it is necessary to take into account the risk of the country where the financial flows will actually take place when quantifying this parameter. Based on the views of well-known academics (Damodaran, A., Cornell, B.), countries use the current yield on long-term government bonds to calculate. To obtain this value, we relied on sources provided by the Regulatory Office For Network Industry in Slovakia.

Another parameter that needs to be quantified is the value of the market risk premium Rp. This is the difference between the return that the investor obtained by investing in the stock market and the return that the risk-free investment brings him. It is essential that this difference is subsequently adjusted according to the risk of the country. To obtain this value, we relied on sources provided by the Regulatory Office For Network Industry in Slovakia.

The Beta coefficient  $\beta$  expresses the volatility in the stock market. For the needs of this article, it is the volatility in the car market. We are based on external sources, specifically the calculations of the American professor Damodaran (2018). This author calculated the Beta coefficient by the method of expert estimation, which is expressed as follows.

$$\beta = \beta_u + \beta_u [D \cdot (1 - T)]/E \tag{4}$$

where

ßu Beta companies without debt

D Market value of debtT Income tax rateE Market value of equity

The method used by Damodaran was based on the idea of determining the Beta coefficient on the basis of a comparison with other but similar undertakings. However, when calculating the coefficients, it also took into account the differences of the given sector, and therefore calculated the coefficients for companies of different sectors and industries. The calculation was also based on values obtained on the basis of market data over a period of five years intended for European companies in the sector, in our case, the automotive industry. Suppose the Beta coefficient is more significant than one and thus more significant than the volatility of the whole market, which means that it is also riskier. In times of economic growth, we see this as a positive signal, as it indicates a tendency for faster growth and a more significant response to developments, so our car market is growing faster than the overall stock market.

The specific risk premium Rs applies to a specific company and maybe different types of surcharges, e.g. surcharge for the size of the company, for the capital structure, for the risk that the company will not be able to repay its liabilities, etc. For our calculations, we have chosen a risk premium for the size of the company because after studying several sources, this is the most common. We determine this parameter on the basis of the rules, which are listed in Table 1.

Table 1 Additional charge for the size of the company

Amount of E	Additional charge for the size of the company
E<3.9 mil. €	5%
3.9 mil. €< E<117.84 mil €	$(117.84 \text{ mil } \in -E)^2/168.2$
E>117.84 mil €	0%

Source: own processing, Kotulovic et al. (2018)

The additional charge will be applied in the formula with its size set at 5%, as the equity of the companies did not exceed 3.9 mil  $\not\in$ 

It is also to calculate the Cost of Debt (Rd) according to the following formula:

$$R_d = R_i \cdot (1 - T) \tag{5}$$

The average interest rate (Ri) at which a company could refinance all of its debt at the time the WACC is calculated to have been used.

## 5 Results

The aim of this article is to evaluate Economic Value Added for the three major companies in Slovak automotive industry. We chose the formula where the WACC had to be calculated. It has been necessary to quantify Cost of Equity (Re), then Cost of Debt (RD). Using the WACC formula (2) from the previous chapter, we recorded the following values:

Table 1 WACC calculation

Weighted Average Cost of Capital (WACC)	Volkswagen
Risk-free rate of return (R <sub>f)</sub>	2.27%
Market risk premium (R <sub>p</sub> )	5.18%
Coefficient Beta (β)	1.92
Specific risk premium (R <sub>s</sub> )	5.00%
Cost of Equity (R <sub>e</sub> )	17.22%
Cost of Debt (R <sub>d</sub> )	3.90%
Market value of the firm's equity (E)	1,656,521,000.00
Market value of the firm's debt (D)	1,297,165,000.00
Percentage of financing that is debt (D/E)	78.31%
Tax rate	22.0%
WACC	11.37%

Based on the EVA formula (1) we chose, moreover, the calculation of Net Operating Profit After Taxes and Invested Capital has been needed. The NOPAT indicator was taken from the financial statements of selected companies. The effective tax rate has been considered according to Konecna and Andrejovska (2020) and Mihokova et al. (2016). Invested capital was calculated as NOPAT divided by ROIC (Return on Invested Capital). The values of ROIC have been taken from the financial statements of the companies.

Table 2 NOPAT, WACC & C calculation

	NOPAT	WACC	С
VW	449,499,934.40	11.37%	1,864,794,223.47
KIA	318,853,647.24	11.41%	1,310,839,324.94
PCA	65,377,145.47	10,79%	197,176,173.83

As the last step, we numerically expressed the Economic Value Added through formula (1) from the previous chapter. The values of this indicator for the three main companies chosen by us are captured in Table 4.

Table 3 EVA calculation

	EVA
VW	237,513,637.48
KIA	169,318,503.15
PCA	44,029,382.58

As shown, all of the three major companies in the automotive industry in Slovakia have achieved positive values of EVA indicator. According to the Economic Value Added calculation, we can summarise the results. The value of the company increases and create value for the owners.

## 6 Discussion

The purpose of the calculation was to determine and interpret the significance of the EVA indicator. Based on the results of a research study by Salaga et al. (2015) & Malichova et al. (2017), who paid particular attention to the application of EVA methods to conditions in Slovakia and focused on adjusting the method of EVA indicator according to Slovak accounting legislation, we applied the conditions to our calculation. Although it is difficult to quantify the EVA indicator correctly, according to Daraban (2017), the EVA method has been found to help achieve

sustainable performance. On the basis of a study by Jankalova & Kurotova (2019), we also investigated that EVA combines all the essential components needed to describe the economic situation of the company, as we based its calculation on several different indicators.

After conducting research by Fernandez (2019), he argues that it is essential for a company to identify the basic parameters that have the most significant impact on value creation. Following our results, we agree with his statement that the importance of each factor will vary for different business units. Since the calculation of this indicator required the monitoring and capture of various classical indicators, we advocate a similar thought as Costa et al. (2018) & Bruni (2008), who argue that the main objective of this indicator is to indicate whether the company is increasing its value, since the subtraction the cost of equity of operating profit allows the value at which the company is assessed to be analysed remunerating the shareholder and whether or not this amount adds value to the partners.

As captured in the previous part, we found that all of the three main companies achieved positive values of this modern indicator, and thus EVA is greater than zero. Based on this, we conclude that the companies produce value from the funds invested in them. It is important to note that these three main companies are foreign companies that have decided to invest in the automotive industry in Slovakia.

The Possibilities to Apply EVA Methods to the Conditions in Slovakia

#### 7 Conclusion

The purpose of the article was to deal with the calculations of the modern EVA indicator of three major companies in the automotive industry in Slovakia. EVA is based on a very simple concept. If a company earns a return that is higher than expected, then the value has been added. This modern indicator represents the difference between actual and expected return multiplied by the capital invested. Based on the results of our calculation, we can assume that all companies achieved positive EVA values. Volkswagen had the highest value at 237,513,637.48, followed by Kia Motors 169,318,503.15 and the lowest PCA Slovakia, 44,092,382.58. The value of EVA is calculated by adjusting accounting profits and balance sheet data, so analysts need to be careful to quantify the individual parameters necessary to calculate EVA published by companies. Comparison of profit and capital with accounting data are given. Adjustments to accounting data are extremely subjective, and they can have an essential effect on the EVA calculation result.

# Literature:

- 1. Awan, A. G., Siddique, K., Sarwar, G. (2014). The effect of Economic Value Added on stock return: Evidence from selected companies of Karachi stock exchange. Research Journal of Finance and Accounting, 5(23), 140-153.
- 2. Bassan, H., Martins, R. A. (2016). Wealth generation in PNQ winning companies: an analysis using EVA. Production, v. 26, n. 1, pp. 203-217.
- 3. Behera, S. (2020). Does the EVA valuation model explain the market value of equity better under changing required return than constant required return? Financial Innovation. ONLINE: <a href="https://jfin-swufe.springeropen.com/track/pdf/10.1186/s40854-019-0167-8">https://jfin-swufe.springeropen.com/track/pdf/10.1186/s40854-019-0167-8</a>
- 4. Blendinger, G., Michalski, G. (2018). Long-term competitiveness based on value-added measures as part of highly professionalised corporate governance management of german DAX 300 corporations. Journal of Competitiveness. ONLINE [https://www.cjournal.cz/files/282.pdf]
- 5. Boonworachote, T. (2018). Financial Performance in Thai Food Industry. The 3rd International Conference on Agro-Industry 2016 "Competitive & Sustainable Agro-Industry: Value Creation in Agribusiness", KnE Life Sciences, pages 277–283. DOI 10.18502/kls.v4i2.1682.
- 6. Brealey, R. (2015). Fundamentals of Corporate Finance (8th ed.). McGraw Hill.

- 7. Bruni, A. L. (2018). Investment valuation. São Paulo: Atlas.
- 8. Cabinova, V., Onuferova, E., Gallo, P. Jr., Gallo, P., Gallo, J. (2018). A Comparative Analysis of Modern Performance Methods in Economic Practice. Montenegrin Journal of Economics 14(4), pp. 85-96.
- 9. Curadi, F. C. (2017). Economic Value Added (EVA): a study in the current literature. Magazine Socioeconomic Development in Debate, v. 3 n. 1, pp. 67-84.
- 10. Claessens, S., Zurtoglu, B.B. (2013). Corporate governance in emerging markets: A survey. Online" < https://www.sciencedirect.com/science/article/pii/S1566014112000131>
- 11. Costa, P. N., Ribeiro, J.E., Byrro, L.M.N., Maciel, C.F.(2018). Performance evaluation by EVA: case study in a small construction company. ABNT, Vol 9, n. 1, pp. 21-36.
- 12. Daraban, M. C. (2017). Economic value Added a general review of the concept. Ovidius University Annals: Economic Sciences Series, 17(1).
- 13. Deeswat, S. 2010. The relationship between the rate of return on net profit margin, return on asset, and return on equity in explaining the stock price. (Master Degree thesis). Sripatum University, Bangkok.
- 14. Dluhosova, D. (2004) Approaches to the analysis of financial performance of companies and industries based on the method EVA- Economic Value Added. 2004. Czech Journal of Economics and Finance Vol. 54, pp. 11-12.
- 15. Dvorakova, L., Faltejskova, O. (2016). Development of Corporate Performance Management in Context of Customer Satisfaction Measurement. Procedia- Social and Behavioral Sciences. Vol. 230, pp. 335-342.
- 16. Finstat database. ONLINE < https://finstat.sk>
- 17. Fernandez, P. (2007). Brand equity and brand valuation: Establishing guidelines for value creation. In K. Sangeetha (Ed.), Branding practices (pp. 158 167). Hyderabad, India: Icfai University Press.
- 18. Fernanadez, P. (2019). Company valuation methods. Técnica Contable y Financiera (6), pp. 62-94.
- 19. Fernandez, P. (2020). The most common error in valuation using WACC (WP-1247-E).
- 20. Gompers, P.A., Ishii, J.L., Metrick, A. (2003). Corporate Governance and Equity Prices. Journal of Economics, 107–155. https://doi.org/10.1162/00335530360535162.
- 21. Jankalova, M., Kurotova, J. (2019). Sustainability Assessment Using Economic Value Added. Sustainability 2020. Vol.12, pp. 318.
- 22. Kalodimos, J. (2017). Internal governance and performance: Evidence from when external discipline is weak. Journal of Corporate Finance, 43(1), 193–216. https://doi.org/10.1016/j.jcorpfin.2017.01.005.
- 23. Khan, A., Muttakin, M.B., Siddiqui, J. (2013). Corporate Governance and Corporate Social Responsibility Disclosures: Evidence from an Emerging Economy. Journal of Business Ethics, 114(2), 207–223.
- 24. Konecna, V., Andrejovska, A. (2020). Investor Decision-Making in the Context of the Effective Corporate Taxation. E&M Ekonomie a Management, 23(1), 111-120.
- 25. Kraus, CH. (2013). EVA/RAROC vs. MCEV Earnings: A unification Approach. The Genevea Papers, 38, pp. 113-136.
- 26. Kumar, S., Sharma, A.K. (2010). Economic Value Added (EVA)- Literature Review and Relevant Issues. International Journal of Economics of Finance. ONLINE: <www.ccsenet.org> 27. Kyiazis, D., Anastassis, CH. (2007) The Validity of the Economic Value Added Approach: an Empirical Application. European Financial Management, 13(1), pp. 71-100.
- 28. Liu, B., McConnell, J.J. Xu, W. (2017). The power of the pen reconsidered: The media, CEO human capital, and corporate governance. Journal of Banking and Finance, 76(1). 175-188. https://doi.org/10.1016/j.jbankfin.2016.12.004, 175–188.
- 29. Malichova, E., Durisova, M., Tokarcikova, E. (2017). Models of application economic value added in automotive company. Online <a href="https://yadda.icm.edu.pl/baztech/element/bwmeta1.element.baztech-0d743d79-db8a-4edc-bd27-445c2f5418a6">https://yadda.icm.edu.pl/baztech/element/bwmeta1.element.baztech-0d743d79-db8a-4edc-bd27-445c2f5418a6</a>
- McLaren, J. (2005). Implementing the EVA Business Philosophy: Management Accounting. Evidence from New Zealand. CIMA Research Report.

- 31. Mihokova, L., Andrejovska, A., Martinkova, S. (2016). Categorization of corporate taxation in the European Union countries using cluster analysis: a comparative study. ECONOMIC ANNALS-XXI, Vol. 160(7-8), 4-8.
- 32. O'Byrne, S.F. (2016). A Better Way to Measure Operating Performance (or Why the EVA Math Really Matters). Journal of Applied Corporate Finance. Vol. 3, pp. 68-86.
- 33. REGULATORY OFFICE FOR NETWORK INDUSTRY. ONLINE: <a href="http://www.urso.gov.sk">http://www.urso.gov.sk</a>
- 34. Rieg, R (2015). Dynamics of value-based management: does shareholder value cause short-termism? Springer Online, 193–224. <a href="https://doi.org/10.1007/s00187-015-0211-4">https://doi.org/10.1007/s00187-015-0211-4</a>.
- 35. Rowland, Z. (2016). Decomposition of EVA Equity to the Sub-operational Plans of a Company. Littera Scripta, 9(3), PP. 52-65.
- 36. Saheli, M., Enayati, G., Javadi, P. (2014). The Relationship between Intellectual Capital with Economic Value Added and Financial Performance. Iranian Journal of Management Studies (IJMS). Vol. 7, No. 2, pp. 259-283
- 37. Salaga, J., Bartsova, V., Kicova, E., Economic Value Added as a measurement tool of financial performance. (2015) Procedia- Economics and Finance. Vol. 26, pp. 484-489.
- 38. Santos, J.V.J., Tavares, A.L., Azevedo, Y.G.P., NETO, R.M.F. (2018). Relationship between stock returns and Economic Value Added (EVA): Empirical evidences in Brazilian public companies. RECFin. Vol. 6, n.1, pp. 119-131.
- 39. Sharma, A.K., Kumar, S. (2011). Economic Value Added (EVA)- Literature Review and Relevant Issues. International Journal of Economics of Finance. ONLINE [www.ccsenet.org]
- 40. Shen, Y., Zou, L., Chen, D. (2015). Does EVA performance evaluation improve the value of cash holdings? Evidence from China. China Journal of Accounting Research 8 (2015) 213-241.

  41. Stewart, G.B. (1991). The Quest for Value, New York: HarperCollins Publishers.
- 42. Stewart, G.B. (1994). EVA: Fact and Fantasy. Journal of Applied Corporate Finance, 7(2), 71-84.

**Primary Paper Section:** A

Secondary Paper Section: AH, AE