

Effects of IAS/IFRS Implementation on the Quality of the Financial Performance Management

Jozef LUKÁČ¹, Katarína ČULKOVÁ^{2*}, Jaroslav GONOS³

¹Assist.prof., Ing.PhD.MBA., Economic University Bratislava, Tajovského 13, 040 01 Košice, Slovakia,

²Assoc.prof., Doc.Ing.PhD., Technical University Košice, Faculty BERG, Letná 9, 040 02 Košice, Slovakia,

³Assist.prof., Ing.PhD.MBA., Prešov University in Prešov, 17th November 15, Prešov, 080 01, Slovakia,

Email: jozef.lukac@euba.sk¹, katarina.culkova@tuke.sk², jaroslav.gonos@unipo.sk³,

* Corresponding author

Received: 21.02.2022

Accepted: 23.05.2022

Published: 01.08.2022

DOI: 10.47750/QAS/23.189.34

Abstract

The aim of the paper is to identify statistically significant differences that arise during the transition of the reporting method. in accounting of assets and liabilities and selected financial indicators in Slovakia and the Czech Republic. We choose Slovak and Czech companies that changed their accounting system in the period under review. We analysed the obtained data using JASP statistical software. Based on several statistical tests, we present in the results the statistical significance of differences between accounting systems - national accounting systems in both countries and IAS/IFRS. We also visualize the percentage change in differences using a box plot. Among the relevant outputs that we found based on research are the results of the test of the statistical significance of percentage changes in accounting items and financial indicators, which have typified in the existing percentage statistical differences. There are also logical relationships between the arranged pairs, which result from the construction of financial indicators. Information from the contribution could serve as evaluation of the financial performance of the various types of companies, regarding IFRS, as well as for providing of financial securities of the companies, contributing to the quality of the company's management. The limitation of the research is difficulty to obtain data, there is only small amount of historical data to evaluate the situation.

Keywords: national accounting system, international accounting standards, financial management, financial performance indicators, Visegrad group.

1. Introduction

Effective and qualitative process of the management in a company is currently not possible without a quality and sufficient amount of information about the financial performance of the company. The source of such information is, in particular, the financial statements, which should give a true and fair view of the facts that take place in the company. It is the financial statements that carry information about the transformation process and business activities. IFRS adoption opened many empirical studies around the world, analyzed different perspectives on the voluntary or mandatory IFRS adoption. Pascan (2015) summarized the determinants of accounting quality and the metrics to analyze the effect of the transition to IFRS on accounting.

IFRS has an impact to the financial reporting quality, leading to the convergence in financial reporting (Palea, 2013), which is different in various countries. Daske et al. (2013), when concluded study financial rate indexes from the view of IFRS, IFRS adoption has an economic consequences. These consequences depend on the depth of the IFRS adoption (Daske et al., 2013). European Union has sought to restore confidence of accounting through the introduction of a new international accounting standard: IAS / IFRS. Bouchareb et al. (2014) verified the impact of good governance mechanisms on earnings management after the adoption of these new standards, found the implementation of good governance mechanisms has narrowed the level of earnings

management. Also Boumediene et al. (2014) researched IFRS relation with earnings management with aim to use accounting information in order to keep earnings for investors and shareholders. Their study shows IFRS had less motivated managers to manipulate the accounting numbers to increase earnings.

IFRS adoption and its influence on the audit, reporting and earnings management depends on the concrete conditions of the country, implementing IFRS. Such conditions are studied by number of authors, for example Hasan and Rahman (2019) in Bangladesh as developing country, followed by research Hasan and Rahman (2020), found IFRS have negative relation with earnings management. Good corporate governance can help to attain the objectives of IFRS adoption. In addition, the sector of the IFRS using is interesting, when for example Cameran and Perotti (2014) concentrated on the IFRS adoption in banking industry from the view of audit fees; found that higher fees are paid after the switch to the new standards. However, not all sectors are researched from the view of IFRS adoption.

However, the question is how to manage the a company by comparing information from financial statements prepared according to different reporting methods for a company in the Slovak Republic according to Slovak legislation, for a company in the Czech Republic prepared according to Czech legislation or a company from India prepared according to international financial reporting standards. The aim of the scientific contribution will be to identify statistically significant

differences between accounting systems. The content of this section will be the testing of statistical hypotheses in order to determine statistically significant differences between accounting systems (national accounting legislation and IAS/IFRS). The variables used will be accounting items of assets and liabilities, but also financial ratios. As research questions, we set questions by which we statistically test the equality of two values of the indicator before and after the implementation of IAS/IFRS at the level of significance α (0.05) and we determine the following hypotheses of the test:

H0: there are no statistically significant differences between the values of the indicator according to national accounting legislation and IAS/IFRS.

H1: there are statistically significant differences between the values of the indicator according to national accounting legislation and IAS/IFRS.

2. Literature Review

Various groups of authors deal with the evaluation of the financial performance of companies in the context of IAS/IFRS, as for example Ramli et al. (2019) and Margaritis and Psillaki (2007). The most widely used accounting variables used by the authors to analyze the impact of the implementation of IAS/IFRS are equity, income and earnings per share and mostly use a regression model. The impact of the implementation of IAS/IFRS is positive for some research (Bartov et al., 2002; Jermacowicz et al., 2007; Prather et al., 2008; Barth et al., 2008; Morais and Curto, 2009), and negative for others (Paananen and Lin, 2009; Clarkson et al., 2011). In the following section, we present other research dealing with the issue of changes in financial performance related to IAS/IFRS.

Tanko (2012) focused his research on more than 220 companies in Nigeria, using the period 2007-2010. Using regression and T-testing, he concluded that the adoption of IFRS increases the value of profitability indicators and reduces liquidity and income indicators. Bahgrava et al. (2014) developed the "IFRS Impact Scorecard", which is the result card for assessing the risk of a fall in the share price of Indian companies when adopting IFRS. Based on the results, they ranked 16 of the 50 most important companies on the Nifty 50 in the low-risk area, 17 companies in the moderate risk zone and the remaining companies are located in the high-risk zones. Zéghal et al. (2011) study adoption of IAS/IFRS in French companies from the view of impact to the earning management, found adoption of IAS/IFRS has decreased earnings management level for companies with good corporate governance and those that depend on foreign financial markets.

The impact of the adoption of IFRS on the financial performance of the company is addressed by Kumar (2014) and Hameedi (2021), who in the research on selected companies monitors the differences in the accounting system IFRS and I GAAP (Indian Accounting Standards) in achieving financial indicators of equity, liquidity, indebtedness and profitability. Rodrigues (2015) dealt with the impact of IFRS implementation on 51 companies in the construction sector in Brazil, where he created a Data Envelopment Analysis - DEA model based on several financial indicators. In the results, he stated that the transition to IFRS has a positive effect on financial indicators. Under Indian GAAP, a study by Gupta et al. (2017), in which there was a change in individual items of assets and liabilities in favour of IFRS. The change was due to the recalculation of equity and liabilities due to the different methodology of depreciation and valuation of fixed assets and the criteria for recognizing income. This results in a difference between the financial ratios in GAAP and IFRS. The Ombati

(2018) examines the correlation between profit and market capitalization (share value) after the adoption of IFRS. The result in selected companies is the achievement of a high degree of positive correlation. Dlasková and Cipovová (2018) dealt with possible changes in the company's creditworthiness, which represent a change in the achieved Z-score values due to the application of data from financial statements according to IFRS in comparison with data from financial statements prepared according to Czech accounting standards (Akhtar, 2017). Using 20 financial statements of entities with main activity in the construction sector, lower values were achieved for Z-score indicators compiled from IFRS statements compared to the values determined using data from financial statements prepared in accordance with Czech accounting legislation.

3. Methodology and research methods

The basic methods can include methods of financial analysis, which we will apply to financial statements of selected companies. Using classical methods of financial analysis, we determine selected indicators from the area of liquidity, profitability, indebtedness and activity of companies. In the scientific contribution, other analytical tools used to verify the statistical significance of the differences will be described in the following section.

3.1 Research design

Box-plot, also called McGill's (1978) box graph, is one of the graphical statistical methods by which we can divide data on the basis of quantiles and quartiles. Quantiles are values that divide an ordered set of values into a number of equal parts. Quantiles in the statistical set of the value of the characteristic unit of statistical units, for which it holds that:

$$Q_r^{(a)} = a_r + h \frac{\frac{r}{a} - \sum_{i=1}^{j-1} f_i}{f_{Q_r^{(a)}}} \quad (1)$$

$Q_r^{(a)}$ is a quantile, a_r represents the lower limit of the r -th quantile interval, h - the length of the class interval, $\sum_{i=1}^{j-1} f_i$ is the cumulative relative number of the interval immediately preceding the quantile interval and $f_{Q_r^{(a)}}$ represents the relative number of the quantile interval.

Statistical tests of normality. The aim of statistical tests of normality is to test the distribution of the analyzed at a preselected level of significance called α (alpha). Using statistical tests of good agreement, we can test the hypothesis that the given distribution is normal, t. j. we examine the assumption of normality. A prerequisite for statistical testing of significant differences between indicators of financial performance of enterprises in the transition from national occupational legislation to IAS/IFRS is to verify whether the analyzed data meet the condition of normality of distribution. We will verify the normality of the distribution by means of the Kolmogorov-Smirnov test and the Shapiro-Wilk test (Markechová et al., 2011).

Correlation analysis - The basis of this analysis is to examine the intensity of the relationship (relationship), which can be called the tightness of the relationship between variables. We measure the tightness using a correlation characteristic, which is independent of the units of measurement of the variables and takes values from the interval $<-1.1>$. In the scientific contribution, we will use:

Pearson's correlation coefficient is a measure of the linear dependence of the variables X and Y. It takes values from the

interval $<-1.1>$. The resulting value of the Pearson correlation coefficient has a direct relation to the covariance, which is an expression of the common variability of the values of both variables. The calculation of the coefficient is defined by the relation (Pearson, 1920):

$$\frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}} \quad (2)$$

Spearman correlation coefficient - It is used to determine the relationship between the two analyzed variables. The values of the random variables are arranged from the smallest to the largest value (ascending) and these rows are replaced by their average value, thus obtaining a selection of $\{x_i, y_i\}_i^N = 1$. If we use the selection of values $\{x_i, y_i\}_i^N = 1$, then the Spearman coefficient is defined by the relation (Spearman, 1904):

$$R(X, Y)_{\text{Spearman}} = 1 - \frac{6 \sum (x_i - y_i)^2}{N(N^2 - 1)} \quad (3)$$

3.2 Participants and Data collection tools

The sources of information for conducting the research are the financial statements prepared in accordance with national accounting legislation and in accordance with IAS/IFRS for the same accounting period. In the research, we focused mainly on the transformation of the Balance Sheet statement into the Statement of Financial Position of the company. We analyzed 10 small and medium-sized enterprises that carry out business activities in several sectors. Sources of data from financial statements are scientific and professional monographs, habilitation and dissertation theses and contributions from domestic conferences dealing with the issue of preparing financial statements in accordance with IAS/IFRS.

3.3 Data analysis

The reason why we chose the resources obtained in this way is the low traceability of the prepared financial statements according to both accounting systems for the same accounting

period. Low traceability is related to the small number of companies reporting under IAS/IFRS and the fact that companies that report under IAS/IFRS do not prepare financial statements under national accounting legislation, but under

$$\text{Differences in \%} = \frac{\text{Value}_{\text{IAS/IFRS}} - \text{Value}_{\text{National accounting legislation}}}{\text{Value}_{\text{National accounting legislation}}} * 100$$

(4)

This change represents an increase, resp. decrease in the value of the IAS / IFRS item compared to the value of the national accounting legislation item expressed in % for the same accounting period. Based on the calculations, we can state that we achieve a positive change (increase in value) with ready liquidity, return on assets and non-current assets.

IAS/IFRS. According to the Register of Organizations of the Statistical Office of the Slovak Republic, 219 466 enterprises were registered in 2017, which were obliged to prepare financial statements. According to the Ministry of Finance of the Slovak Republic, only 112 of them prepare financial statements in accordance with IAS/IFRS, which represents 0.05 %.

According to the national accounting legislation, the entity is obliged to quantify only the profit or loss for the purposes of calculating the income tax base and the tax. The sources of information chosen in this way reflect the real-time conversions of the Balance Sheet in enterprises, which are used for scientific research and educational needs. If we chose the form of transformation of financial statements according to national accounting legislation into statements according to IAS/IFRS, the data would be significantly distorted. With the IAS/IFRS accounting system, it is up to the accountant himself to report individual items of assets and liabilities; of course he must follow the methodological guidelines of IAS/IFRS. An example could be the reporting of spare parts, where according to national accounting legislation this item is an inventory, but in IAS/IFRS it is up to the entity to keep this item in current assets in inventories or to transfer it to non-current assets to the item land, buildings, and equipment. Based on such accounting operations, which would be on the subjective decision of the author of the contribution, the reality of the reported facts would be limited.

4. Results

In the research we test statistical hypotheses to analyze different accounting systems using asset items, liabilities and selected financial indicators. The following table contains information sources for conducting your own research. In the research, we will focus primarily on the transformation of the Balance Sheet statement into the Statement of Financial Position of the company. We will analyze 10 small and medium enterprises. The sources of financial statements are scientific and professional monographs, habilitation and dissertation theses and contributions from domestic conferences dealing with the issue of compiling financial statements in accordance with IAS/IFRS. The analyzed companies represent 6 companies from the Slovak Republic and 4 companies from the Czech Republic.

The basic characteristic of the analysis is the change in the items of assets, liabilities and financial indicators in percent, which is calculated as the relationship:

On the contrary, we observe a decrease in value in the case of variable inventories, long-term liabilities, return on equity and the golden balance rule long-term. The lowest impact on the values of variables in the transition from national accounting legislation to the IAS/IFRS system can be seen in long-term and short-term indebtedness.

GENERAL MANAGEMENT

Variable (accounting item)	Change in% (average value)	Variable (financial indicator)	Change in% (average value)
Non - current assets	16,88	Golden long-term balance rule	-21,54
Equity	11,67	Golden short-term balance rule	-3,83
Long-term commitments	-37,36	Total indebtedness	15,34
Current assets	-4,09	Long-term debt	-0,97
Short - term liabilities	6,24	Short-term debt	1,23
Money	6,06	Ready liquidity	29,20
Short - term receivables	-2,65	Current liquidity	-6,76
Stocks	-39,65	Total liquidity	-10,28
Liabilities (Assets)	5,74	Return on equity	-19,55
		Return of assets	19,70

Table 1. The average variation in %
Source: developed by the authors.

The following Table 2 contains the basic characteristics of the variables. The table below provides an overview of the data obtained (range, minimum, maximum, standard deviation,

variance, and sharpness). Position measure - the diameter is in the previous section.

Variables - Change in %	Range	Minimum	Maximum	Median	St. deviation	Variance
Non - current assets	0,6462	-0,139	0,5072	0,1755	0,1786	0,032
Equity Change	0,7207	-0,1278	0,5929	0,0921	0,1989	0,040
Long-term commitments	3,5515	-2,9430	0,6084	-0,0295	1,0356	1,072
Current assets	0,2151	-0,2161	-0,0010	-0,0127	0,0660	0,004
Short - term liabilities	0,2635	-0,0041	0,2593	0,0444	0,0772	0,006
Money	0,2958	0,0000	0,2958	0,0000	0,1048	0,011
Short - term receivables	0,4321	-0,2612	0,1709	0,0000	0,1688	0,029
Stocks	35,4538	-35,4538	0,0000	-0,5119	11,0423	121,933
Assets (Liabilities)	0,2216	-0,0010	0,2206	0,0471	0,0645	0,004
Golden short-term balance rule	38,9214	-36,6164	2,3050	-0,2098	11,6300	135,256
Golden long-term balance rule	7,6359	-2,5051	5,1309	-0,0499	2,0492	4,199
Total indebtedness of assets	1,0192	-0,4470	0,5722	0,0290	0,2509	0,063
Long-term debt	3,4937	-2,9932	0,5005	-0,0644	1,0400	1,082
Short-term debt	0,4699	-0,2884	0,1815	0,0221	0,1190	0,014
L1	0,8925	-0,1254	0,7671	-0,0178	0,2614	0,068
L2	0,3828	-0,3273	0,0555	-0,0244	0,1182	0,014
L3	0,4000	-0,3773	0,0227	-0,1283	0,1318	0,017
ROE	7,1708	-7,0581	0,1126	-0,1018	2,2048	4,861
ROA	0,8587	-0,2840	0,5747	-0,0290	0,2643	0,070

Table 2. Descriptive statistics indicators
Source: developed by the authors.

Based on descriptive statistics, we can state that the largest spread within the analyzed variables (their percentage changes) can be seen in the stock indicator and the smallest in the item of current assets and total assets. Based on the minimum and maximum, we can monitor what are the highest and lowest achieved percentage changes in the analyzed variables.

4.1. Visualization of percentage changes of values

By visualizing the data using box fences, we will be able to show the variability of the examined variables (book values and financial indicators). The x-axis contains individual variables and the y-axis the values of percentage changes during the transition from national accounting legislation to IAS/IFRS. Parallel to the x-axis is the reference line, which indicates the value 0 - a state when the change in the accounting system has no impact on the value of accounting items and financial indicators.

GENERAL MANAGEMENT

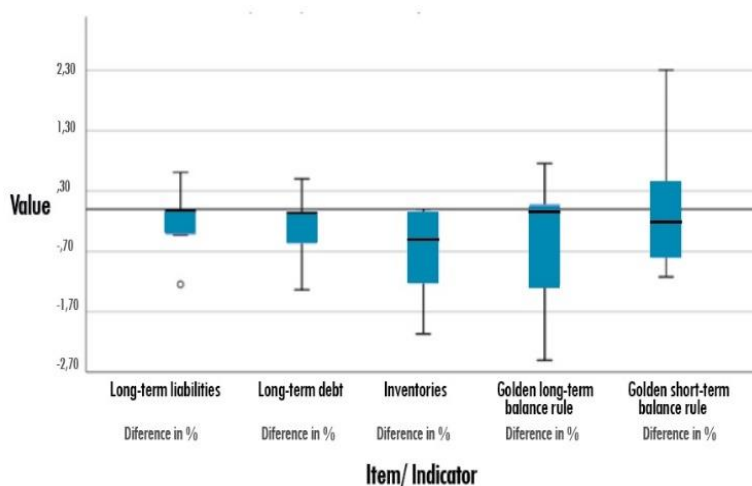


Figure 1. Box plot for large changes -270 % - 230 %

From the Figure 1, we can see that almost all values of accounting items and indicators reached a lower value during the transition to the accounting system IAS/IFRS compared to the initial state - national accounting legislation. The largest variability of changes from the analyzed accounting items in this group is for the item of inventory, which for 50 % ranges from -2 % to -120 %, while for 25 % of observed enterprises the indicator of change in inventories ranges from -120 % to -220 %. The fact that this is an indicator in which the national accounting system (hereinafter referred to as „SUL/CUL“) value is almost always higher than the IFRS value is also confirmed by the median indicator -0.5119, which is probably the furthest from the reference line.

The smallest change is in the item long-term liabilities, the median of which is at a level slightly below 0 % change. The lowest variability of this indicator is also indicated by the smallest blue rectangle on the graph. As in the previous case, for the long-term debt indicator the change in %, the value of

this indicator is characterized by low variability.

As for the other indicators, although the median value of the gold balance rule (long-term) is at the level of zero change, it is an indicator that is characterized by a high degree of variability. In some cases, a change of up to -260 % can occur. On the other hand, up to 75 % of the surveyed companies did not show a change of less than -120 %. The indicator golden balance rule (long-term) has a median value below the reference line, which means that for more than 50 % of the surveyed companies, the value of IFRS is lower than the value of SUL/CUL. On the other hand, it is precisely with this indicator that we can also observe cases (although due to the length of the blue rectangle there are relatively few of them), when IFRS values exceed SUL/CUL values by up to 230 %. We can state that this indicator achieves a negative decrease compared to the national accounting legislation. It is with this indicator that we can observe its variability in the increase in the value of IAS/IFRS by 230 %.

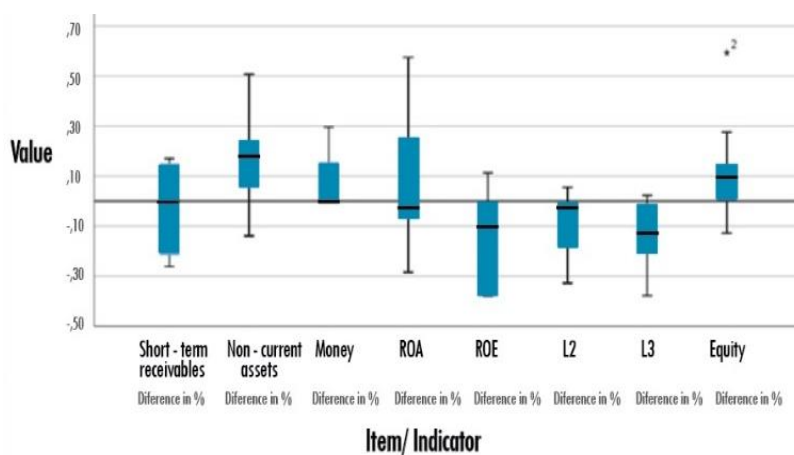


Figure 2. Box plot for medium changes -50 % - 70 %

The second group are financial indicators and accounting items, the volatility of which during the transition from national accounting legislation to IAS/IFRS changes from -50 % to 70 %. The median of the short-term receivable item is at the level of the reference line with a 0 % change. Non-current assets in the transition to IAS/IFRS reach higher values in more than 75 % of observations. We can only see positive values for the money item, while it should be added that the maximum change in the money item during the transition to IAS/IFRS is only at the level of 30 %. The financial indicator ROA reaches a lower value in the transition from national accounting legislation in more than half of the observations and in the ROE indicator it is up to 75 % of observations. Indicators of

ready and total liquidity also achieve a decrease in value during the implementation of IAS/IFRS. The accounting item equity in the transition from the national accounting legislation reaches a higher book value in more than 75 % of observations.

The asset and liability item can be seen in the third group with the lowest volatility of change. These items reach higher values in the IAS/IFRS system in all observations. The indicator of total indebtedness of assets reaches higher values in more than 60 % of observations, and these values change compared to national accounting legislation in some cases up to 23 %. The short-term indebtedness indicator reaches mostly a positive value of the change indicator, similarly to the

GENERAL MANAGEMENT

item short-term liabilities, where only in rare cases was the value of the change indicator negative. The book item current assets in all observations reach a lower value in IAS/IFRS.

The last financial indicator is ready liquidity, which will decrease its value in all observations when the accounting system changes.

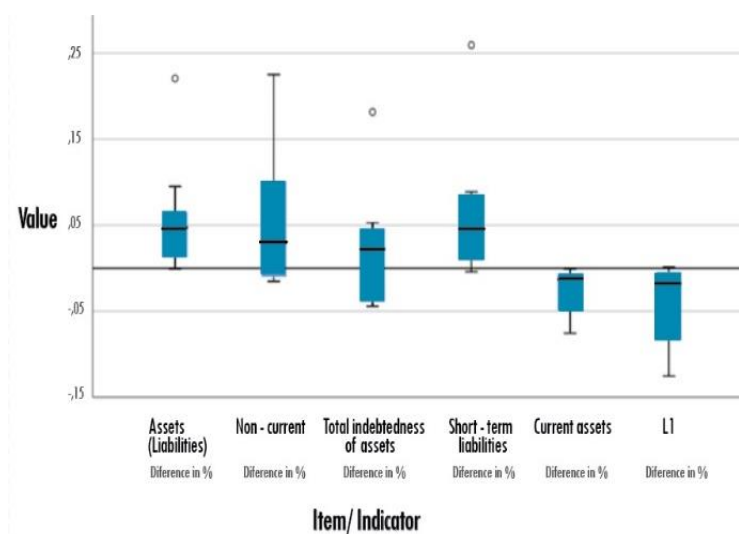


Figure 3. Box plot for small changes -15 % - 25 %

4.2. Normality testing

The precondition for statistical testing of correlations between percentage changes in accounting items and indicators of financial performance of enterprises in the transition from national occupational legislation to IAS/IFRS is to verify whether the analyzed data meet the condition of normality of distribution. We will verify the normality of the distribution by means of the Kolmogorov-Smirnov test and the

Shapiro-Wilk test.

At the level of significance α (0.05) we determine the hypotheses of the test:

H0: individual percentage changes in accounting items or indicators of financial performance of enterprises correspond to the normal distribution,

H1: individual percentage changes in accounting items or indicators of financial performance of enterprises do not correspond to the normal distribution.

	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	Sig.	Statistic	Sig.
Non - current assets	0,145	,200	0,987	0,991
Equity Change	0,247	0,084	0,851	0,059
Long-term commitments	0,282	0,024	0,770	0,006
Current assets	0,285	0,021	0,646	0,000
Short - term liabilities	0,267	0,041	0,759	0,005
Money	0,418	0,000	0,652	0,000
Short - term receivables	0,214	0,200	0,863	0,083
Stocks	0,472	0,000	0,414	0,000
Assets (Liabilities)	0,255	0,064	0,780	0,008
Golden short-term balance rule	0,485	0,000	0,445	0,000
Golden long-term balance rule	0,282	0,023	0,808	0,018
Total indebtedness of assets	0,290	0,017	0,862	0,081
Long-term debt	0,277	0,028	0,773	0,007
Short-term debt	0,253	0,068	0,825	0,029
L1	0,453	0,000	0,535	0,000
L2	0,259	0,055	0,879	0,126
L3	0,206	0,200	0,907	0,258
ROE	0,396	0,000	0,504	0,000
ROA	0,307	0,008	0,873	0,107

Table 3. Kolmogorov-Smirnov and Shapiro-Wilk test

By comparing the value of Sig. (p-value) from the previous table with the determined level of significance α (0.05) we can state that for accounting items and financial indicators:

Long-term liabilities, current assets, short-term liabilities, money, inventories, gold balance rule short-term and gold balance rule long-term, total indebtedness of assets, long-term indebtedness, ready liquidity, ROE and ROA reject the zero hypothesis of normal distribution and state that individual percentage changes in accounting items and indicators of

financial performance of enterprises do not have a normal distribution,

Non-current assets, equity, short-term receivables, assets, current liquidity, total liquidity and short-term indebtedness do not reject the null hypothesis of a normal distribution and we state that individual percentage changes in accounting items and financial performance indicators of companies have a normal distribution.

GENERAL MANAGEMENT

4.3. Correlation coefficients

Based on previous testing of the normality of the distribution of accounting items and financial indicators, we will use the parametric Pearson correlation coefficient (marked in

green in the table 4 for variables with a normal distribution within the correlation coefficients. For variables that do not have a normal distribution, we use the nonparametric Spearman correlation coefficient.

*Correlation coefficient – CC *Sig. (2-tailed) – Sig		Total indebtedne ss of assets	Long-term debt	Short-term debt	L2	L3	ROE	ROA
Equity	CC*	0,879**	-0,212	0,275	-0,860**	-0,852**	-0,830**	0,212
	Sig*	0,001	0,556	0,442	0,001	0,002	0,003	0,556
Long - term liabilities	CC	0,055	,951**	-,877**	-0,067	0,227	0,153	-0,816**
	Sig	0,880	0,000	0,001	0,853	0,528	0,672	0,004
Short - term liabilities	CC	0,115	-0,745*	0,842**	-0,212	-,648*	-0,430	0,794**
	Sig	0,751	0,013	0,002	0,556	0,043	0,214	0,006
Money	CC	-0,172	-0,574	0,679*	0,172	-0,395	-0,321	0,768**
	Sig	0,636	0,083	0,031	0,636	0,258	0,366	0,009
Short - term receivables	CC	-0,480	-0,326	0,301	0,756*	0,342	0,105	0,609
	Sig	0,160	0,358	0,399	0,011	0,333	0,774	0,061
Stocks	CC	-0,802**	-0,188	0,231	0,584	0,492	0,626	-0,091
	Sig	0,005	0,602	0,521	0,077	0,148	0,053	0,802
Assets	CC	-0,067	0,006	-0,660*	-0,018	-0,036	-0,079	-0,103
	Sig	0,855	0,987	0,038	0,960	0,921	0,829	0,777

Table 4. Results of statistical testing of percentage differences

Source: developed by the authors.

For coefficients marked with an asterisk, the p value (Sig.) is less than 0.05 and thus the values of the correlation coefficients are statistically significant (thus they have significance). For other pairs, the p-value of the correlation coefficients is greater than 0.05 and thus the correlation coefficients have no significance. We cannot judge whether there is a correlation between them or not. Since in all cases the correlation coefficients with an asterisk are values higher than 0.6, we can state that in these cases there is a strong correlation between the variables. However, we must state that strong correlations between two variables, e.g. equity and ROE are logical due to the participation of the equity item in the calculation of the ROE indicator.

Among the relevant outputs that we found based on research are the results of statistical hypotheses. The first part is to test the statistical significance of percentage changes in accounting items and financial indicators, which have typified in the existing percentage statistical differences in the Box plot. The results of the existing correlation between the ordered pairs in tab. 5. To test the relationships, we used a nonparametric Spearman correlation coefficient and a parametric Pearson correlation coefficient (marked in green in the table), choosing the significance level α (0.05 * and 0.01 **).

There are also logical relationships between the arranged pairs, which result from the construction of financial indicators. For example, in the case of ROE, the equity item in the denominator of the formula or current liabilities in the numerator of the formula are short-term debt. There is a strong indirect linear relationship between the equity and current and total liquidity pairs. There is also a strong indirect linear relationship between long-term liabilities and the ROA indicator. The item short-term liabilities, the ROA indicator, the item money, and the ROA indicator reach the values of the correlation coefficient of a slight direct linear dependence.

Discussion

Among the most important results for the practice of companies we can include disproportions in the reporting of

individual items of assets and liabilities - which ultimately has an impact on the values of financial indicators. The final section describes the principles, methods and procedures applied in the conversion of the Balance Sheet prepared in accordance with national accounting legislation to the Statement of Financial Position of the Company prepared in accordance with IAS/IFRS. The mentioned transfer is a benefit for companies in the area of practical application of the applied procedures when changing the accounting system.

Based on the research, we accept hypothesis H1, which states that there are statistically significant differences between the values of the indicator according to national accounting legislation and IAS/IFRS.

From the point of view of IAS/IFRS, we have created a real estate investment item as part of non-current assets, which is not a separate item in the conditions of national accounting legislation. This item is part of other non-current assets under national accounting legislation. In the case study, we created an item for renting a part of the building that does not serve the core business.

The metrics and determinants in the presented paper, orientated to the ROE and ROA evaluation, fulfill the results of Pascau (2015) to better analyze transition to IFRS. Such extension of the metrics is due to the important need to make deep IFRS adoption (Daske et al., 2013). Deep IFRS analyzes brings more information for managers of the companies, especially from the view of earning management (Bouchareb et al., 2014; Boumediene, 2014). Statistically important differences between the values of the researched indicators are in accord with research of Bartov et al. (2002); Ombati (2018), etc.

Conclusions

The benefits of this research can be both scientific and pedagogical. The very benefit for science is the knowledge that the issue of the IAS / IFRS implementation process and its impact on the financial performance of companies in Slovakia is a young scientific discipline, which aims to describe the legal basis for reporting individual financial

statements and analyze differences in financial indicators. Positive and negative differences in financial indicators can significantly affect the competitiveness of companies, e.g. in the evaluation of enterprises according to the multicriteria evaluation of enterprises in the area.

The change in the accounting system is reflected in improved comparability of financial statements, opening up market opportunities for the company and increasing access to foreign sources of financing. On the other hand, compared to the advantages, we also find certain increased costs caused by employee training, bookkeeping and according to the national accounting system due to the need to determine income tax or the use of external accounting services.

By switching to the IAS/IFRS accounting system, companies are able to improve several financial indicators. Different values of financial indicators for the same accounting period are due to different approaches to the valuation of assets and liabilities compared to national accounting legislation. The different values of the indicators are due to the different definition and classification of assets and liabilities, while IAS/IFRS prefers the nature of the assets and liabilities themselves to the form of the accounting item. During the research we encountered a provision for asset repairs, which, however, is prohibited under IAS/IFRS and had to be dissolved for other expenses and retained earnings for reporting purposes.

We firmly believe that we will continue to do similar research in the future. These studies will also need to be monitored in the light of the many events that are taking place on world markets in relation to Covid-19. (Khatib, 2021; Williams, 2021)

Author Contributions

conceptualization, J. L.; methodology, J. L. and K. Č.; investigation, J. L.; resources, K. Č. and J. G.; data analysis, J. L. and K. Č.; writing-original draft preparation, J. L. and J. G.; visualization, K. Č. and J. G.

Funding

This research received funding from project VEGA 1/00619/19 "Experimental searching of the propensity of the economic agents to tax evasion."

References

- [1] Akhtar, S. (2017). Capital structure of multinational and domestic corporations—a cross-country comparison. *Accounting & Finance*, 57(2), 319-349.
- [2] Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of accounting research*, 46(3), 467-498.
- [3] Bartov, E., Goldberg, S. R., & Kim, M. (2005). Comparative value relevance among German, US, and international accounting standards: A German stock market perspective. *Journal of Accounting, Auditing & Finance*, 20(2), 95-119.
- [4] Bhargava, V., & Shikha, D. (2013). The impact of international financial reporting standards on financial statements and ratios. *The International Journal of Management*, 2(2), 1-15.
- [5] Bouchareb, M., Ajina A., Souid, S. 2014. Does the adoption of IAS/IFRS with a strong governance mechanism can deter earnings management? *International Journal of Academic Research in Economics and Management Sciences*. 3(1). doi: 10.6007/IJAREMS/v3-i1/645.
- [6] Boumediene, E., Boumediene, S. L., & Nafti, O. (2014). Impact Of Adopting IAS-IFRS On The Handling Of Accounting Data: The Case Of France. *Journal of Applied Business Research (JABR)*, 30(4), 1239-1252. doi: 10.19030/jabr.v30i4.8670

- [7] Cameran, M., Perotti, P. 2014. Audit fees and IAS/IFRS adoption: Evidence from the banking industry. *International Journal of Auditing*, 18(2), 155-169. doi: 10.1111/ijau.12019.
- [8] Clarkson, P., Hanna, J. D., Richardson, G. D., & Thompson, R. (2011). The impact of IFRS adoption on the value relevance of book value and earnings. *Journal of Contemporary Accounting & Economics*, 7(1), 1-17.
- [9] Daske, H., Hail, L., Leuz, Ch., Verdi, R. 2013. Adopting a Label: Heterogeneity in the economic consequences around IAS/IFRS adoptions. *Journal of Accounting Research*, 51(3), 495-547.
- [10] Dlasková, G., & Cipovova, E. (2018). Valuation of intangible assets according to Czech accounting standards and IFRS in the context of explanatory power of financial statements. *Маркетинг і менеджмент інновацій*, (3), 59-67.
- [11] Gupta, P., Akhter, J., & Chaklader, B. (2017). The impact of IFRS adoption on key financial ratios-An analysis of Wipro. *Imperial Journal of Interdisciplinary Research*, 3(4).
- [12] Hameedi, K. S., AL-Fatlawi, Q. A., ALI, M. N., & Almagtome, A. H. (2021). Financial performance reporting, IFRS implementation, and accounting information: Evidence from Iraqi banking sector. *The Journal of Asian Finance, Economics and Business*, 8(3), 1083-1094.
- [13] Hasan, M.T., Rahman, A.A. 2019. Conceptual framework for IFRS adoption, audit quality and earnings management: The case of Bangladesh. *International Business of Accounting Research Journal*, 3(1), doi:10.15294/ibarj.v3i1.56.
- [14] Hasan, M.T., RAHman, A.A. 2020. The Role of Corporate Governance on the Relationship Between IFRS Adoption and Earnings Management: Evidence From Bangladesh. *International Journal of Financial Research*, 11(4), doi: 10.5430/ijfr.v11n4p329
- [15] Jermakowicz, E. K., Prather-Kinsey, J., & Wulf, I. (2007). The value relevance of accounting income reported by DAX-30 German companies. *Journal of International Financial Management & Accounting*, 18(3), 151-191.
- [16] Khatib, S. F., & Nour, A. N. I. (2021). The impact of corporate governance on firm performance during the COVID-19 pandemic: evidence from Malaysia. *Journal of Asian Finance, Economics and Business*, 8(2), 0943-0952.
- [17] Kumar, K. A. (2014). International Financial Reporting Standard (IFRS): Prospects and Challenges. *Journal of Accounting & Marketing*, 3(1), 1-4.
- [18] Margaritis, D., & Psillaki, M. (2007). Capital structure and firm efficiency. *Journal of Business finance & accounting*, 34(9-10), 1447-1469.
- [19] Markechová, D., Tirpáková, A., Stehlíková, B. (2011). Base of the statistics for the pedagogue. (in Slovak), UKF v Nitre, 405 p.
- [20] McGill, R., Tukey, J. W., & Larsen, W. A. (1978). Variations of box plots. *The american statistician*, 32(1), 12-16.
- [21] Morais, A. I., & Curto, J. D. (2009). Mandatory adoption of IASB standards: Value relevance and country-specific factors. *Australian Accounting Review*, 19(2), 128-143.
- [22] Ombati, R., & Shukla, A. (2018). Analyzing the problems with the current adoption of IFRS in the companies among India, China, Germany, Russia and Kenya. *Accounting*, 4(1), 29-40.
- [23] Paananen, M., & Lin, H. (2009). The Development of Accounting Quality of IAS and IFRS over Time: The Case of Germany. *Journal of International Accounting Research*, 8(1), 31-55. doi:10.2308/jiar.2009.8.1.31.
- [24] Palea, V. (2013). IAS/IFRS and financial reporting quality: Lessons from the European experience. *China Journal of Accounting Research*, 6(4), 247-263. doi:10.1016/j.cjar.2013.08.003.
- [25] Pășcan, I.-D. (2015). Measuring the Effects of IFRS Adoption on Accounting Quality: A Review. *Procedia Economics and Finance*, 32, 580-587. doi:10.1016/s2212-5671(15)01435-5.
- [26] Pearson, K. (1920). Notes on the history of correlation. *Biometrika*, 13(1), 25-45.
- [27] Prather-Kinsey, J., Jermakowicz, E., & Vongphanith, T. (2008, January). Capital market consequences of European firms' mandatory adoption of IFRS. In *American Accounting Association Annual Meeting (Anaheim, California)*.
- [28] Ramli, N. A., Latan, H., & Solovida, G. T. (2019). Determinants of capital structure and firm financial

- performance—A PLS-SEM approach: Evidence from Malaysia and Indonesia. *The Quarterly Review of Economics and Finance*, 71, 148-160.
- [29] Rodrigues, M., M., Hein, N., Kroenke, A. (2015). Impact of convergence to IFRS on the economic and financial performance of construction and transportation enterprises: a study conducted through data envelopment analysis. *Applied Mathematical Sciences*, 9(91), 7-23
- [30] Spearman, Ch. (1904). General Intelligence objectively determined and measured. *The American Journal of Psychology*, 15(2), 201-292
- [31] Tanko, M. (2012). The effect of international financial reporting standards (IFRS) adoption on the performance of firms in Nigeria. *Journal of Administrative and Economic Sciences*, 5(2), 133-157.
- [32] Williams, M., Mi, E., Le Calvez, K., Chen, J., Pakzad-Shahabi, L., Dadhania, S., ... Rabinowicz, S. (2021). Estimating the Risk of Death from COVID-19 in Adult Cancer Patients. *Clinical Oncology*, 33(3), e172–e179. doi:10.1016/j.clon.2020.10.021.
- [33] Zéghal, D., Chtourou, S., & Sellami, Y. M. (2011). An analysis of the effect of mandatory adoption of IAS/IFRS on earnings management. *Journal of International Accounting, Auditing and Taxation*, 20(2), 61–72. doi:10.1016/j.intaccudtax.2011.06.001.