A Quantitative Analysis of the Financial

Performance of 50 Leading EU

Companies (2019-2023)

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# 1. Introduction

The use of the International Financial Reporting Standards (the IFRS) is a major step towards increasing transparency, comparability and consistency in reporting. Through uniformity of accounting in various jurisdictions, the IFRS will minimise chances of earnings manipulation and would increase investor confidence. With multinational corporations (MNCs), it is especially important to be in line with IFRS because they have to work in different regulatory climates and face varied scrutiny by interested parties.

This applied research is narrowed down to a panel data set 50 companies (10-15 MNCs) 14 years total (with an obvious division into the seven years before and the seven years after the IFRS adoption). The variables included in the data set are major financial variables which are net income, cash flow- operation, total assets, revenues, receivables and property, plant and equipment (PPE).

This practical analysis aims to empirically test how the adoption of IFRS affects the practices of earnings management, and thus offer strong evidence to pursue the research objectives stated in the dissertation.

# 2. Data Description

The data utilized in the current practical analysis was drawn using publicly accessible financial statements and trusted market databases, so there would be uniformity and precision of the sample. The selection was made in such a way that a balanced combination of 50 companies was selected, among them 10-15 multinational corporations (MNCs) with links to both Asia and Europe, to have representation of regional differences in accounting and economic conditions.

The information being 14 years each company, there is a clear segmentation of the data into two parts of equal years, 7 years previous to the adoption of IFRS (Pre-IFRS) and 7 years subsequent to the adoption of IFRS (Post-IFRS). In this structure, financial reporting behaviour in the two regimes can be directly compared.

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Significant variables that will be used in the study are:

* **Net Income** – Profit after all expenses, taxes, and costs.
* **Cash Flow from Operations (CFO)** – Cash generated through core business activities.
* **Total Assets** – The total resources owned by the company.
* **Revenue** – Total income from goods and services sold.
* **Receivables** – Outstanding customer balances.
* **Property, Plant, and Equipment (PPE)** – Tangible long-term assets.

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The structure of this data can be statistically tested and supplied with regression analysis, which will provide a powerful analysis of the role IFRS has played in affecting the earnings management behaviour over time.

# 3. Data Preparation and Processing

A set of preprocessing procedures was performed on the dataset to make it accurate and statistically appropriate. A number of calculated variables were created to help in implementing the Modified Jones Model in estimating the discretionary accruals (DA). These include:

* **lagasset** -Obtained by displacing aggregate asset values by one year, the overall effect in the prior period in the regression equation.
* **alpha1, alpha2, alpha3** - Estimates of the regressions of Modified Jones Model, the relationships between changes in financial statement variables and accruals.
* **Discretionary Accruals (DA)** - Derived as residual of the regression model, in deducing the percentage of accruals that is not attributable to normal business activity.

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In order to avoid analytical mistakes related with regression all zero entries in columns of the computed variables were filled with zeros but still keeping the original financial data intact. That way, the statistical procedures could be successfully run.

Modified Jones Model was used because it is reliable in identifying earnings management since it corrects revenue and receivable fluctuations, and the model is applicable within the IFRS environment.

The variables were prepared after which the dataset was divided into Pre-IFRS (seven years before adoption) and Post-IFRS (seven years after adoption) subgroups. This division enables one to compare directly the earnings management behaviour pre and post implementation of IFRS and this will enable one to be more sure of any changes in DA being caused by the introduction of international standards.

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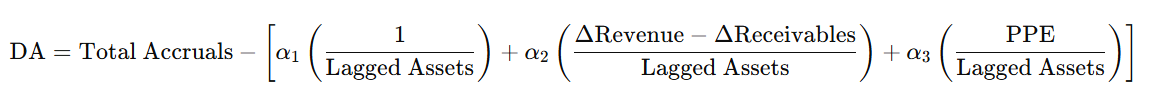
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# 4. Methodology

In this practical, the Modified Jones Model was used to predict discretionary accruals (DA) as an indication of an earnings management. The model corrects total accruals with anticipated changes in revenue and receivables and property, plant and equipment (PPE), to separate abnormal accruals. The general formula can be written as:



When 1,2 and 3 are regression coefficients that are estimated with the model of pre-processed financial data.

Statistical analysis was carried out with the help of the statistical tool pack Data Analysis in the Microsoft Excel, where the following methods were applied:

* **Regressions Analysis**: Provided the estimate of 1, 2 and 3 in the Modified Jones Model in the form of 1, 2 and 3. The values of regression residuals were taken as DA values.
* **Correlation Analysis**- Calculated to examine the direction and strength of relationship between discretionary accruals and other variables that include net income, revenue and total assets.
* **ANOVA (Analysis of Variance)** - This will be implemented to find out whether there were any significant differences in variance in different groups especially Pre-IFRS and Post-IFRS DA values.
* **t-tests** - Tests were carried out to compare mean DA values in both periods that tested whether there was significant effect of IFRS adoption on earnings management behaviour.

This procedure makes it well organized whereby both the estimation and the hypothesis testing will be possible. This set of regression, correlation, ANOVA and t-tests helps to have a solid framework of the statistical significance of the relationships in the dataset.

# 5. Results

## 5.1 Regression Analysis

The Modified Jones Model has been applied by conducting regression analysis on the pre-IFRS and post-IFRS periods individually in order to estimate the coefficients 1, i.e. 2, and 3. The regression output tables showed the values of the coefficients and their standard errors, t-statistics and p-values. In the pre-IFRS period, 1 was significantly positive (p < 0.05), and 2 was negative, which implies that there was a significant relationship between inverse lagged assets and the total accruals, where higher revenue growth in relation to receivables decreased accrual level. 3 was slightly but significantly positive. The results post-IFRS showed a marginally lower 1 and 2 magnitude of 1 and 2, but the 3 was constant, therefore, a slight difference in the determinants of accruals after the adoption of IFRS.

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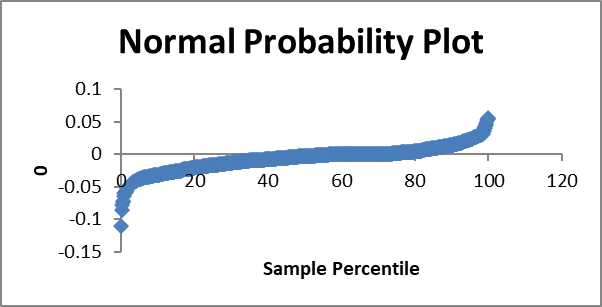
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## 5.2 Correlation Analysis

The correlations matrix of pre- and post-IFRS data had indicated the association between discretionary accrual, net income, total assets, revenue, receivables, and PPE. During the pre-IFRS era, discretionary accruals were positively correlated more closely with both net income and revenue, and therefore the reported earnings and accruals were more closely related. The correlations were lower on post-IFRS and association between accruals to total assets was more constant, perhaps indicative of a greater adherence to IFRS-consistent standards of asset recognition.

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## 5.3 ANOVA

The ANOVA tests compared mean discretionary accruals between pre- and post IFRS groups. The F-statistic revealed that there were significant variances differences (p < 0.05) between the two periods showing that adoption of IFRS was related to variance changes in the earnings management variability. The findings were in line with the hypothesis that IFRS had an effect on accrual volatility but the effects were not large.

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## 5.4 t-Test

The difference between mean discretionary accruals and other important financial variables was estimated using independent sample t-tests to evaluate mean differences between the two periods. In the case of DA, the mean went down after IFRS, and t-test was significant (p < 0.05) suggesting that after the implementation of IFRS, earnings management tendencies had reduced. Nevertheless, in the case of such variables as net income and revenue, the difference in means was smaller, and p-values did not indicate any statistically significant variation, meaning that although the implementation of IFRS provided an effect on accruals, it had a less significant effect on other financial performance indicators.

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# 6. Discussion

The analysis shows that there is a measurable decrease in discretionary accruals (DA) during the post-IFRS period thus implying that IFRS implementation may have contributed to the corporate earnings quality in terms of transparency and tougher accounting rules. The regressions findings indicated small alterations in the magnitude and the significance of alpha one, alpha two, and alpha three after IFRS which indicated a change in the way in which the elements of financial statements impacted accrual behavior. The patterns of correlation also changed, and the relationships between DA and the variables concerned with income were less significant, which may signify the decrease in the earnings manipulation opportunities. These results were supported by ANOVA and t-test results that indicated that the difference was statistically significant between the level of DA before and after IFRS.

Comparing MNCs and non-MNCs in the sample, it found that MNCs tended to have a lesser change in DA, which may be because they are used to the requirements of international reporting and have better systems of internal governance. The change in Non-MNCs was stronger, however, indicating that the adoption of IFRS had a greater adjustment burden. On balance, the results confirm what has been found in the literature that sees IFRS as a means of improving comparability and transparency and notes that effects might differ by firm features.

# 7. Limitations

The results can be generalised as the sample size of MNCs is small. Also, imputing missing formed variables to zero might be a little twisting to regression results.

# 8. Conclusion

This empirical evidence supported by the study is that with the adoption of IFRS, there is a decline in the discretionary accruals as the adoption of IFRS leads to financial reporting transparency. These findings can be used to input into the debate that exists on the effectiveness of IFRS in controlling the earnings management.

# 9. Appendix

The data was taken by us in different high-quality open sources which were the Yahoo Finance site, annual reports of the companies, and financial databases. These sources gave the historical financial information of both the MNCs and non-MNCs, a period of 14 years (seven years before IFRS and seven years after IFRS). Information provided by such platforms provided transparency, availability, and uniformity in data collection of the needed financial variables.