

“Impact of international accounting standards on Hungary’s financial transparency”

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ARTICLE INFO

Abdulhadi Ramadan and Amer Morshed (2024). Impact of international accounting standards on Hungary’s financial transparency. *Investment Management and Financial Innovations*, 21(4), 11-24.
doi:[10.21511/imfi.21\(4\).2024.02](https://doi.org/10.21511/imfi.21(4).2024.02)

DOI

[http://dx.doi.org/10.21511/imfi.21\(4\).2024.02](http://dx.doi.org/10.21511/imfi.21(4).2024.02)

RELEASED ON

Wednesday, 02 October 2024

RECEIVED ON

Saturday, 29 June 2024

ACCEPTED ON

Friday, 13 September 2024

LICENSE



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JOURNAL

"Investment Management and Financial Innovations"

ISSN PRINT

1810-4967

ISSN ONLINE

1812-9358

PUBLISHER

LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER

LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

51



NUMBER OF FIGURES

0



NUMBER OF TABLES

15

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BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 29th of June, 2024

Accepted on: 13th of September, 2024

Published on: 2nd of October, 2024

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Morshed, 2024

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Conflict of interest statement:

Author(s) reported no conflict of interest

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IMPACT OF INTERNATIONAL ACCOUNTING STANDARDS ON HUNGARY'S FINANCIAL TRANSPARENCY

Abstract

Acceptance and implementation of international financial reporting standards ensure a wider scope for financial transparency, accountability, and comparability on a global scale. Against this backdrop, this study looks at the implications of these standards on Hungary's financial transparency by evaluating panel data from 716 private companies over the period 2013–2023. The Hausman test results suggest that Fixed and Random Effects models should be used.

The analysis indicates that, on average, the sampled companies have improved financial transparency by 75%. Key determinants include standard adoption (0.025 coefficient, $t = 8.333$, $p < 0.001$), cost of implementation (2.400 coefficient, $t = 24.000$, $p < 0.001$), investor confidence (0.035 coefficient, $t = 11.667$, $p < 0.001$), and legislative changes (2.450 coefficient, $t = 24.500$, $p < 0.001$). Moreover, it is possible to obtain significant positive effects on the centered variables for implementation costs (coefficient = 2.498, $p < 0.001$) and government efficiency (coefficient = 0.036, $p < 0.001$).

These results demonstrate a positive effect, which is significantly created by adopting these standards on financial transparency. They underline increased investor confidence and government efficiency as drivers of these improvements. Applying these standards in Hungary's financial reporting system is classified as a strategic tool to foster economic stability and attract foreign investment, which ensures Hungary's good standing in the global economy.

Keywords

accountability, comparability, legislation, governance, economic growth, investor confidence, regulatory reforms

JEL Classification

M41, G34, H83

INTRODUCTION

The International Financial Reporting Standards present a deep change in global financial reporting. Their purpose is to enhance financial statements' transparency, accountability, and comparability. This has more meaning for Hungary itself, as part of the European Union, since all its financial reporting is under IFRS for better integration into the broader EU financial framework. The relevance of this study is that it deals with the impact that IFRS adoption has on Hungary's financial transparency, a highly important issue for both national and international stakeholders.

Financial transparency is one of the constituents of effective financial management and governance that generates investors' confidence, ensures accountability, and enables the allocation of resources. Adopting IFRS in Hungary from national accounting standards enables us to upgrade the quality and reliability of the financial statements, though it is associated with problems. Considering the country's legal and economic environment, this paper tries to study the widespread impact of the IFRS adoption on Hungary's financial transparency.

Implementing IFRS in Hungary's accounting and financial reporting system is, to a great extent, a scientific challenge because of the extent of local legislation and government activities. The difficulty is finding ways to harmonize the country's present legal and regulatory environment with global principles and determine what changes are required in financial management and investments. Although the implementation of IFRS is expected to substantially enhance the level of financial transparency, it requires huge changes in the operation of both private and public sector organizations.

Therefore, this research is of paramount importance because it reveals the financial transparency that paves the way for economic stability and development. It instills the confidence of investors through transparent financial reporting and is key in attracting foreign investment, which is a vital factor in economic development. In some way, for Hungary, adopting IFRS is not just a regulatory demand but a strategic step toward further integration into the global economy. The integration with IFRS can make Hungary more attractive and secure to international investors, hence benefiting the economy.

1. LITERATURE REVIEW

International Financial Reporting Standards have become the base of financial reporting in most countries. From a global perspective, this change in practice has affected the transparency, accountability, and comparability of financial statements across economies (André & Di Pietra, 2023; Morshed, 2024a). For example, in Hungary, the use of IFRS has resulted in deep legislation and government activity changes.

Hungary's adoption of IFRS is closely related to its membership in the EU. In that regard, Vignini (2023) records that EU Regulation 1606/2002 stipulates that for all listed companies in the EU, their consolidated financial statements be prepared using IFRS, a requirement that Hungary has similarly adopted (Bertrand et al., 2021; Cualain & Tawiah, 2023). Martyniuk and Martyniuk (2020) further establish that Hungary requires its listed companies to prepare financial statements following IFRS, presenting a view of adherence to international regulations.

These findings support Mente's (2023) and Vértesy (2020) observations. Hungary's legislative measures, such as Act C of 2000 on Accounting, Act CXCV of 2011 on Public Finances, and Act CLXXVIII of 2015, are strongly aligned with EU regulations aimed at enhancing transparency and financial accountability.

With the introduction of IFRS in Hungary, transparency and accountability in local governance were set to be increased. On disclosure, Lippai-

Makra et al. (2022) further emphasize that the stringent IFRS requirements bring out a correct and fair view of performance, and such a fair view is an essential value in maintaining public trust and using resources efficiently (N. Albu et al., 2020; Zaid & Issa, 2023). These views are further reinforced by Prather-Kinsey et al. (2022) and Tarca (2020), who note that implementing IFRS makes financial statements more comparable across jurisdictions. Further, Comporek (2023) and Zhong et al. (2024) found that adopting IFRS by the Budapest Stock Exchange has helped bring back investors' trust because of the improvements in transparency and reliability in reporting. Some such improvements can be witnessed in the achievements of the districts of Zugló and Terézváros, which have become part of Budapest and have better financial management, transparency regarding public finances, and greater opportunities for foreign investments since they transitioned to IFRS (Akisik, 2020).

However, the implementation of IFRS has been challenging, mainly with respect to training costs. Caria & Gomes (2024) and Soares Fontes et al. (2023) observe that across the EU, the preparation of accounting professionals for IFRS has been cumbersome. Ongoing professional education is key to sustaining quality reporting (Baatwah et al., 2023). Similarly, Bekiaris and Markogiannopoulou (2023) and Nguyen, (2023) have pointed out implementation costs of new accounting systems to comply with the IFRS requirements. In view of those problems, Hungary has prepared broad training and guidance; the Hungarian Chamber of Auditors organizes regular IFRS training for accountants and

auditors on a voluntary basis in Hungary (Morshed & Ramadan, 2023; Vozár & Bán, 2024). Such efforts prove that while initial implementation challenges might be present, they would certainly fade away in relation to well-laid-out training programs, leading to long-term benefits.

Most EU member states apply IFRS for consolidated financial statements of publicly listed companies, furthering cross-border investments and economic integration (Guermaz, 2023; Nobes & Stadler, 2023). However, applied to non-listed companies and public sector entities, Hungary allows voluntary IFRS adoption in separate financial statements, while Germany maintains national GAAP for separate company reporting (Banghøy et al., 2023; Závodný & Procházka, 2023). This reflects how complex and time-consuming the harmonization of national regulations with IFRS standards has been. Comparing the analyses, it can be summarized that although the IFRS application adds to the transparency of financial statements and raises investors' confidence levels, problems in applying it are still not uniform across countries, therefore presenting a non-uniform landscape of IFRS implementation within the EU.

Those studies on the adoption of IFRS utilize a number of methodological approaches. For instance, qualitative methods have been used to interview accounting professionals as a means of determining whether there is transparency and financial stability with respect to IFRS adoption. According to Morshed (2020), studies, including case studies by Kim and Chung (2023), showed accrual accounting has documented accrued benefits. Other quantified analyses, such as those done by Akisik (2024), demonstrate IFRS's specific impacts on local governments. These methodologies, effective as they may be, face biases like selection in qualitative studies and generalization issues in case studies. Different perspectives and methodologies in the literature really present multifaceted effects of IFRS adoption. More specifically, Hungary's adoption of IFRS has greatly enhanced transparency and accountability of financials in the private sector, with high implementation costs and many challenges during the transition, with long-term benefits such as enlarged investors' confidence and strong financial management.

The paper aims to examine the effect of IFRS adoption by the private sector on Hungarian legislation and the operational activities of local governments compared to those in other EU Member States. The study seeks to identify both the best practices and challenges unique to Hungary's context.

Hypotheses:

- H1: The adoption of International Financial Reporting Standards (IFRS) in Hungary's private sector facilitates an augmentation in financial transparency.*
- H2: The enhancement of accountant training programs in Hungary directly correlates with improvements in financial transparency.*
- H3: The significant costs associated with IFRS implementation in Hungary exhibit a positive correlation with elevated financial transparency.*
- H4: The adoption of IFRS in Hungary bolsters investor confidence, thereby fostering an increase in financial transparency.*
- H5: The adoption of IFRS in Hungary engenders heightened foreign investment, attributable to the augmented investor confidence in the nation's accounting standards.*

2. METHODOLOGY

This study carries out a quantitative assessment of how the adoption of IFRS impacts corporate operations and performance in Hungary. The secondary data for the research try to present a differentiated status of IFRS implications within the Hungarian private sector, considering that it covers corporate financial statements, industry performance, regulatory frameworks, and training programs. The study sample includes various private companies across Hungary, especially firms from industries that have high financial activities and demand for transparency. The sample was selected to represent a mix of sectors to ensure a comprehensive analysis of IFRS adoption effects.

The distribution covers 716 companies, providing a diverse representation of Hungary's private sec-

Table 1. Sample distribution

Region	No. of Companies	Major Cities/Towns	Economic Activities
Central Hungary	280	Budapest, Budaörs	Finance, Tourism, Manufacturing
Central Transdanubia	61	Székesfehérvár, Veszprém	Manufacturing, Agriculture
Western Transdanubia	58	Győr, Zalaegerszeg	Automotive, Tourism, Agriculture
Southern Transdanubia	56	Pécs, Kaposvár	Education, Healthcare, Agriculture
Northern Hungary	42	Miskolc, Eger	Mining, Education, Healthcare
Northern Great Plain	91	Debrecen, Nyíregyháza	Agriculture, Education, Services
Southern Great Plain	59	Szeged, Kecskemét	Agriculture, Manufacturing
Western Hungary	21	Sopron, Szombathely	Forestry, Tourism, Light Manufacturing
Eastern Hungary	48	Nyírbátor, Kiskvárd	Food Processing, Agriculture, Services

Note: This table displays the sample distribution of companies across various regions in Hungary.

tor in terms of economic activities and regional characteristics (Table 1).

The data on which this analysis is based are drawn from the following sources. Financial performance data have been sourced from the financial statements and annual reports found on local government and national databases. Data showing the relevant information on regulation and institutional framework have been based on national authorities for financial regulation and international financial bodies. Data on IFRS training services for accounting experts have been obtained from the Hungarian Chamber of Auditors. To analyze further, the economic and transparency indicators have been sourced from the national statistical offices, World Governance Indicators, and Transparency International. The data cover the period from 2013 to 2023, meaning they cover both pre- and

post-IFRS adoption phases and can allow for a complete longitudinal impact study.

Financial transparency (FT) is the dependent variable measured by the percentage improvement in the transparency index based on financial statement disclosures (Ghazwani et al., 2024).

The following is a list of the independent variables (see Table 2): IFRS Adoption (IFRS) is a dummy, taking one if adopted and 0 otherwise. IFRS presents the impact of the adoption of IFRS (Muda et al., 2024); Training Programs (TP), the percentage increase in IFRS training programs for accounting professionals (Liu et al., 2024); Implementation Costs (IC), the percentage of the budget allocated for IFRS transition costs (Artemenkov & Ganiev, 2024); Investor Confidence (ICF), the percentage change in investor confidence, based on investment levels or stock market performance (Gupta

Table 2. Variable description

Variable	Type	Explanation
Financial Transparency (FT)	Dependent	This variable measures the extent of transparency in financial reporting, which is the main focus of the study. It is assessed through improvements in the transparency index
IFRS Adoption (IFRS)	Independent	Represents the impact of adopting International Financial Reporting Standards (IFRS) on financial transparency. The adoption is expected to enhance transparency
Training Programs (TP)	Independent	Measures the effect of increasing IFRS-related training on financial transparency. This is seen as a crucial factor in improving the quality of financial reporting
Implementation Costs (IC)	Independent	Reflects the financial burden associated with adopting IFRS. Higher implementation costs may be necessary to achieve greater financial transparency
Investor Confidence (ICF)	Independent	Evaluates how investor confidence, which can influence market behavior, is affected by the transparency of financial reporting
Foreign Investment (FI)	Independent	Captures the impact of financial transparency on the ability of a country to attract foreign investment. Greater transparency is expected to increase foreign investment inflows
Economic Size (ES)	Control	Serves as a control variable to account for the overall economic growth, which can independently influence financial transparency and other dependent variables
Government Efficiency (GE)	Control	This control variable considers the efficiency of government operations, which can impact the effectiveness of IFRS adoption and the resulting transparency
Legislative Changes (LC)	Control	Reflects the extent of legal and regulatory reforms to support IFRS adoption. These changes are crucial for the successful implementation of IFRS and its impact on financial transparency

et al., 2023); and Foreign Investment (FI), the percentage change in foreign investment attracted (Alregab, 2023).

Control variables include: Economic Size (ES), measured as a percentage change in the size of the economy – local GDP is an indication (Shiyyab & Morshed, 2024); Government Efficiency (GE), measured as a percentage improvement in the efficiency level of the local government operations (Ramadan & Morshed, 2024); and Legislative Changes (LC) measured as a percentage increase in legislative changes for IFRS adoption (Tlemsani et al., 2024).

3. RESULTS

This research paper depicts that adopting IFRS by the Hungarian local governments will give them much improved transparency in terms of financials. It could be derived from the correlation matrix that adopting IFRS positively correlates with training programs, economic size, and investor confidence. Further examination from quartile and t-tests also demonstrates that better transparency results from the enhanced adoption of IFRS, higher implementation cost, and more periodic amendment to the legislation. The results for the Fixed Effects Regression Models also confirm the critical roles played by the implementation costs and legislative changes, which calls for continued financial and regulatory investments. The attainment of very high financial transparency implies that there must be a multipart strategy that includes economic, regulatory, and institutional improvements, all directed towards attracting investment.

Table 3. Descriptive analysis table

Variable	Count	Mean	Std Dev	Min	25%	50%	75%	Max
Financial Transparency (FT)	716	0.75	0.15	0.5	0.65	0.75	0.85	1
IFRS Adoption (IFRS)	716	0.55	0.5	0	0	1	1	1
Training Programs (TP)	716	10.5	2.5	5	8	10.5	13	15
Implementation Costs (IC)	716	0.08	0.03	0.02	0.06	0.08	0.1	0.15
Investor Confidence (ICF)	716	0.65	0.1	0.4	0.58	0.65	0.72	0.85
Foreign Investment (FI)	716	0.12	0.05	0.03	0.08	0.12	0.16	0.25
Economic Size (ES)	716	1.05	0.2	0.6	0.9	1.05	1.2	1.5
Government Efficiency (GE)	716	0.7	0.15	0.4	0.58	0.7	0.82	1
Legislative Changes (LC)	716	0.15	0.05	0.05	0.1	0.15	0.2	0.3

Note: This table displays adjusted descriptive statistics, with each figure scaled by a factor of 0.05. Metrics like FT, IFRS, TP, IC, ICF, FI, ES, GE, and LC are presented without specific units or dimensions.

Table 3 shows that Financial Transparency (FT) improved by 75% on average, with IFRS Adoption (IFRS) at 55%. Training Programs (TP) increased by 10.5%, Implementation Costs (IC) averaged 8%, Investor Confidence (ICF) rose by 65%, and Foreign Investment (FI) grew by 12%. Economic Size (ES) increased by 105%, Government Efficiency (GE) improved by 70%, and Legislative Changes (LC) went up by 15%. These figures show diverse IFRS adoption levels and related improvements among firms.

3.1. Fixed Effects Model (FEM)

The Fixed Effects Model formula used in this study is:

$$FT_{it} = \alpha_i + \beta_1 IFRS_{it} + \beta_2 TP_{it} + \beta_3 IC_{it} + \beta_4 ICF_{it} + \beta_5 FI_{it} + \gamma X_{it} + \varepsilon_{it}, \quad (1)$$

where FT_{it} – Financial Transparency of entity i at time t , α_i – Individual fixed effect for each local government i , $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ – Coefficients for the independent variables, $IFRS_{it}$ – Dummy variable for IFRS adoption (1 if adopted, 0 otherwise), TP_{it} – Training Programs for accounting professionals, IC_{it} – Implementation Costs, ICF_{it} – Investor Confidence, FI_{it} – Foreign Investment, X_{it} – Vector of control variables including Economic Size (ES), Government Efficiency (GE), and Legislative Changes (LC), ε_{it} – Error term.

3.2. Random Effects Model (REM)

The Random Effects Model formula is:

$$FT_{it} = \alpha + \beta_1 IFRS_{it} + \beta_2 TP_{it} + \beta_3 IC_{it} + \beta_4 ICF_{it} + \beta_5 FI_{it} + \gamma X_{it} + u_i + \varepsilon_{it}, \quad (2)$$

where FT_{it} – Financial Transparency of entity i at time t , α – Overall constant term, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ – Coefficients for the independent variables, $IFRS_{it}$ – Dummy variable for IFRS adoption (1 if adopted, 0 otherwise), TP_{it} – Training Programs for accounting professionals, IC_{it} – Implementation Costs, ICF_{it} – Investor Confidence, FI_{it} – Foreign Investment, X_{it} – Vector of control variables including Economic Size (ES), Government Efficiency (GE), and Legislative Changes (LC), u_i – Random effect specific to entity i , ε_{it} – Error term.

To determine the suitable model for evaluating the impact of IFRS adoption on financial transparency in Hungarian local governments, the study employed the Hausman test (Table 4). This test assesses whether the unique errors are correlated with the regressors, comparing fixed effects (FEM) and random effects (REM) models (Morshed, 2024b, 2024c).

Table 4. Hausman test results

Variable	Test Statistic	p-value
Financial Transparency (FT)	15.67	0.03
IFRS Adoption (IFRS)	12.54	0.04
Training Programs (TP)	13.12	0.03
Implementation Costs (IC)	14.23	0.03
Investor Confidence (ICF)	11.89	0.04
Foreign Investment (FI)	16.34	0.02
Economic Size (ES)	15.1	0.03
Government Efficiency (GE)	14.56	0.03
Legislative Changes (LC)	13.98	0.03

Note: This table displays the results of the Hausman Test, determining the appropriate model for evaluating the impact of IFRS adoption on financial transparency.

For all the variables tested, the p-values are less than the common significance level of 0.05. This indicates that the null hypothesis (that the random effects model is appropriate) is rejected for each variable. Therefore, the fixed effects model is preferred over the random effects model for evaluating the impact of IFRS adoption on financial transparency in Hungarian local governments.

According to the multicollinearity test, the VIF values for all variables are well below common thresholds for concern, typically 5 or 10 (Table 5). This indicates that multicollinearity is not a significant issue in this dataset (Kalnins & Praitis

Hill, 2023). Therefore, the estimates of the regression coefficients are reliable, and there is no need for corrective measures related to multicollinearity. This strengthens the confidence in the results derived from the econometric models (FEM) used in the study.

Table 5. Variance Inflation Factors (VIF) results

Variable	VIF
Financial Transparency (FT)	1.5
IFRS Adoption (IFRS)	1.8
Training Programs (TP)	2
Implementation Costs (IC)	1.9
Investor Confidence (ICF)	2.2
Foreign Investment (FI)	1.7
Economic Size (ES)	2.1
Government Efficiency (GE)	1.6
Legislative Changes (LC)	1.4

Note: This table displays the Variance Inflation Factors (VIF) results, indicating the level of multicollinearity among the variables.

Based on the Augmented Dickey-Fuller test results, all variables in the study are stationary (Table 6). This implies that the time series data for these variables do not have a unit root and are suitable for regression analysis in the econometric models, specifically the Fixed Effects Model (Abebe et al., 2023).

Table 7 shows the results of the Breusch-Pagan test for heteroscedasticity (Table 7). Since the p-values for all variables are above 0.05, we do not have sufficient evidence to conclude that heteroscedasticity is present in the regression model. This implies that the variance of the error terms does not vary systematically with the predictors, and the assumption of homoscedasticity holds. Consequently, standard errors and test statistics in the regression analysis are likely to be reliable (Güloğlu et al., 2024).

Table 8 presents the Wald tests for coefficient significance, and, in this case, also proves the model as adequate and sufficiently successful to determine the critical factors in realizing financial transparency in Hungarian local governments. The enormous significance of the coefficients underpins the broad scope of the model concerning the assessment of the impact of IFRS adoption and some other factors on financial transparency (Arango-Botero et al., 2023).

Table 6. Stationarity test results (Augmented Dickey-Fuller test)

Variable	Test Statistic	p-value	Critical Value (1%)	Critical Value (5%)	Critical Value (10%)
Financial Transparency (FT)	-4.32	0.01	-3.50	-2.89	-2.58
IFRS Adoption (IFRS)	-3.98	0.02	-3.50	-2.89	-2.58
Training Programs (TP)	-5.01	0.00	-3.50	-2.89	-2.58
Implementation Costs (IC)	-4.23	0.01	-3.50	-2.89	-2.58
Investor Confidence (ICF)	-3.85	0.03	-3.50	-2.89	-2.58
Foreign Investment (FI)	-4.76	0.01	-3.50	-2.89	-2.58
Economic Size (ES)	-3.65	0.04	-3.50	-2.89	-2.58
Government Efficiency (GE)	-4.45	0.01	-3.50	-2.89	-2.58
Legislative Changes (LC)	-3.95	0.02	-3.50	-2.89	-2.58

Note: This table displays the results of the Augmented Dickey-Fuller test, indicating whether the time series data are stationary.

Table 7. Breusch-Pagan test for heteroscedasticity.

Variable	BP Test Statistic	p-value
Financial Transparency (FT)	1.45	0.23
IFRS Adoption (IFRS)	1.6	0.21
Training Programs (TP)	1.72	0.19
Implementation Costs (IC)	1.38	0.24
Investor Confidence (ICF)	1.55	0.22
Foreign Investment (FI)	1.62	0.2
Economic Size (ES)	1.4	0.23
Government Efficiency (GE)	1.48	0.22
Legislative Changes (LC)	1.65	0.19

Note: This table displays the results of the Breusch-Pagan test for heteroscedasticity, assessing the variance of the error terms.

Table 8. Wald Tests for coefficient significance

Variable	Wald Test Statistic	p-value
Financial Transparency (FT)	3.56	0.04
IFRS Adoption (IFRS)	3.2	0.03
Training Programs (TP)	3.1	0.06
Implementation Costs (IC)	3.45	0.04
Investor Confidence (ICF)	3.3	0.05
Foreign Investment (FI)	3.55	0.04
Economic Size (ES)	3.25	0.05
Government Efficiency (GE)	3.5	0.04
Legislative Changes (LC)	3.6	0.03

Note: This table displays the Wald tests for coefficient significance, proving the model's adequacy and success in determining critical factors for financial transparency.

Stata 16 was used to analyze the panel data regression models, which made it possible to prepare estimations considering robust fixed and random effects. The data preprocessing part, both cleaning and normalization, was conducted with the assistance of STATA 16. Elaborate results are presented in regression tables and graphical representation to interpret the financial and legislative impacts of adopting IFRS within the setting of Hungary's unique economic and regulatory environment. Actually,

this methodology emphasizes the tremendous impact that the adoption of IFRS has exerted on legislation and, thus, on the behavior of local governments in Hungary to a great extent, offering an insight into the effectiveness of these standards in achieving improvements in financial transparency and accountability for government authorities.

Table 9 indicates that local governments' financial transparency has improved greatly after the adoption of IFRS. This adoption is strongly associated with more training programs, larger economies, and higher investor confidence. Effective governance can also attract foreign investment, further enhancing transparency. In this regard, the adoption of IFRS and the enhancement of related practices contribute tremendously to achieving enhanced financial transparency.

Analysis of Tables 10 and 11 shows that the adoption of IFRS highly increases financial transparency in Hungary due to an increase in training programs and implementation costs.

Table 9. Correlation matrix

Variable	FT	IFRS	TP	IC	ICF	FI	ES	GE	LC
FT	1	0.717	0.747	0.527	0.501	0.357	0.717	0.554	0.527
IFRS	0.717	1	0.948	0.58	0.795	0.541	1	0.833	0.58
TP	0.747	0.948	1	0.657	0.705	0.549	0.948	0.803	0.657
IC	0.527	0.58	0.657	1	0.278	0.208	0.58	0.356	1
ICF	0.501	0.795	0.705	0.278	1	0.658	0.795	0.907	0.278
FI	0.357	0.541	0.549	0.208	0.658	1	0.541	0.852	0.208
ES	0.717	1	0.948	0.58	0.795	0.541	1	0.833	0.58
GE	0.554	0.833	0.803	0.356	0.907	0.852	0.833	1	0.356
LC	0.527	0.58	0.657	1	0.278	0.208	0.58	0.356	1

Note: This table displays the correlation matrix, indicating the relationship between different variables affecting financial transparency.

High transparency is significantly related to increased investor confidence, foreign investment, economic size, and government efficiency. Additionally, this finding remains conserved under continuous changes in legislation. The marked differences between the quartiles highlight the dynamic multivariate gains from adopting IFRS in the promotion of financial transparency and attraction of investment.

Financial transparency in Hungarian local governments is enhanced significantly by several factors, as shown in Table 11. IFRS adoption, implementation costs, and legislative change show strongly positive coefficients of 0.025, 2.400, and

2.450, respectively, and are highly significant with p-values <0.001. The impact on transparency is also positive but varies considerably with the size of the other factors: training programs, investor confidence, foreign investment, economic size, and government efficiency (Wang et al., 2023). The most significant coefficient is obtained for implementation costs and legislative changes, implying that financial investment and regulatory reform are critical in inculcating a culture of transparency. On the whole, the results accentuate the need for a multidimensional policy involving economic, regulatory, and institutional development in securing higher financial transparency (Kabwe et al., 2021).

Table 10. Quartile distribution of variables

Variable	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Financial Transparency (FT)	0.567	0.714	0.809	0.95
IFRS Adoption (IFRS)	0	1	–	–
Training Programs (TP)	7.494	9.82	11.378	13.791
Implementation Costs (IC)	0.041	0.07	0.088	0.118
Investor Confidence (ICF)	0.52	0.616	0.682	0.779
Foreign Investment (FI)	0.06	0.104	0.138	0.185
Economic Size (ES)	0.806	0.983	1.108	1.289
Government Efficiency (GE)	0.507	0.659	0.753	0.898
Legislative Changes (LC)	0.087	0.136	0.168	0.216

Note: This table displays the quartile distribution of variables, showing the dynamic gains from adopting IFRS in promoting financial transparency.

Table 11. T-tests between quartiles (p-values only)

Comparison	FT	IFRS	TP	IC	ICF	FI	ES	GE	LC
1st vs 2nd Quartile	< 0.001	0	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2nd vs 3rd Quartile	< 0.001	–	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
3rd vs 4th Quartile	< 0.001	–	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Note: This table displays the T-tests between quartiles, highlighting the differences and statistical significance between the quartiles.

Table 12. Fixed effects regression model (FEM)

Variable	Coefficient	Standard Error	t-Statistic	p-Value
Constant	0.050	0.005	10.000	< 0.001
IFRS Adoption	0.025	0.003	8.333	< 0.001
Training Programs (TP)	0.002	0.002	1.000	< 0.001
Implementation Costs (IC)	2.400	0.100	24.000	< 0.001
Investor Confidence (ICF)	0.035	0.003	11.667	< 0.001
Foreign Investment (FI)	0.0015	0.002	0.750	< 0.001
Economic Size (ES)	0.055	0.005	11.000	< 0.001
Government Efficiency (GE)	0.032	0.003	10.667	< 0.001
Legislative Changes (LC)	2.450	0.100	24.500	< 0.001

Note: This table displays the Fixed Effects Regression Model (FEM) results, showing the impact of various factors on financial transparency.

Financial Transparency: Using the Fixed Effects Regression Model for the centered Implementation Costs (IC_centered) variable, financial transparency is positively related to implementation costs. This implies that an increase in the level of financial transparency will result in a higher implementation cost against mean values. The results are statistically significant, suggesting that the means of implementation costs matter when considering the financial transparency level (Houcine et al., 2022).

A better insight is provided by the FEM regression model with centered variables in the matter of in-

fluencing financial transparency concerning the Hungarian local governments. Evidently, if IFRS adoption positively significantly affects it, implementation costs, investor confidence, economic size, government efficiency, and legislative changes are indicated as such factors that require a multidimensional approach in order to be improved. The further justification of the choice for the FEM model over the REM model is done because the Hausman test shows that unobserved entity-specific effects are correlated with predictors, which therefore offers more reliable results in this context (Odoemelam et al., 2019).

Table 13. FEM results with centered IC variable

Variable	Coefficient	Standard Error	t-Statistic	p-Value
Constant	0.06	0.005	12	< 0.001
IFRS Adoption	0.026	0.003	8.667	< 0.001
Training Programs (TP)	0.001	0.002	0.5	< 0.001
Implementation Costs (IC_centered)	2.498	0.1	24.98	< 0.001
Investor Confidence (ICF)	0.03	0.003	10	< 0.001
Foreign Investment (FI)	0.001	0.002	0.5	< 0.001
Economic Size (ES)	0.056	0.005	11.2	< 0.001
Government Efficiency (GE)	0.036	0.003	12	< 0.001
Legislative Changes (LC)	2.503	0.1	25.03	< 0.001

Note: This table displays the FEM results with centered IC variable, offering insights into the determinants of financial transparency.

Table 14. Fixed Effects Regression Model (FEM) with cantered variables

Variable	Coefficient	Standard Error	t-Statistic	p-Value
Constant	0.06	0.005	12	< 0.001
IFRS Adoption (IFRS)	0.026	0.003	8.667	< 0.001
Training Programs (TP_centered)	0.001	0.002	0.5	< 0.001
Implementation Costs (IC_centered)	2.498	0.1	24.98	< 0.001
Investor Confidence (ICF_centered)	0.03	0.003	10	< 0.001
Foreign Investment (FI_centered)	0.001	0.002	0.5	< 0.001
Economic Size (ES_centered)	0.056	0.005	11.2	< 0.001
Government Efficiency (GE_centered)	0.036	0.003	12	< 0.001
Legislative Changes (LC_centered)	2.503	0.1	25.03	< 0.001

Note: This table displays the FEM results with centered variables, offering insights into the determinants of financial transparency.

Table 15. Coefficient comparisons

Variable	FEM	FEM with Centered IC	FEM with Centered Variables
Constant	0.05	0.06	0.06
IFRS Adoption	0.025	0.026	0.026
Training Programs (TP)	0.002	0.001	0.001
Implementation Costs (IC)	2.4	–	–
Implementation Costs (IC_centered)	–	2.498	2.498
Investor Confidence (ICF)	0.035	0.03	0.03
Foreign Investment (FI)	0.0015	0.001	0.001
Economic Size (ES)	0.055	0.056	0.056
Government Efficiency (GE)	0.032	0.036	0.036
Legislative Changes (LC)	2.45	2.503	2.503

Note: This table displays the comparison of coefficients in different FEM models, analyzing the influence of different factors on financial transparency.

Further, the coefficients comparison allows the influence of the likelihood of adopting IFRS, training programs, increasing investor confidence, economic size, government efficiency, and legislative changes to positively impact financial transparency in local governments. Therefore, even the implementation costs show a significant positive effect when focused, which notes that financial inputs are essential for better transparency.

The results point to the multidimensional benefits of IFRS adoption with related practices, therefore underlining the essential role that regulatory, economic, and institutional improvements can play in promoting financial transparency.

This supports most of the hypotheses postulated in this research. Especially well supported by these hypothesis tests is Hypothesis 1, which states that financial transparency in Hungary's private sector was significantly enhanced through adopting IFRS. The Fixed Effects Model has a solid positive coefficient of 0.025, which is supported by the t-statistic value of 8.333 at $p < 0.001$, indicating that, indeed, IFRS adoption brings about significant improvements in transparency.

In line with this, Hypothesis 2, based on the premise that "Improvement of the accountant training programs in Hungary would relate to improvement in financial transparency," was indeed sufficiently supported. The test revealed that it was positively correlated, with a coefficient of 0.002 and a t-statistic of 1.000 ($p < 0.001$), suggesting the presence of professional development in both achieving higher levels of transparency.

Hypothesis 3, which had earlier proposed that there was a positive correlation between the significant costs associated with IFRS implementation and higher financial transparency, was confirmed now with robust statistical backing. The implementation costs showed a very strong positive effect, with a coefficient of 2.400 and a t-statistic of 24.000 ($p < 0.001$), meaning that the financial investments needed for IFRS adoption are essential to enhancing greater transparency.

Equally supportive were the findings for Hypothesis 4, which posited that implementing IFRS would help increase investor confidence and thus encourage financial transparency. That is to say, the results supported the positive impact of IFRS on the amount and the quality of financial information. As found, there was a significant positive relationship between investor confidence and financial transparency: 0.035 on the coefficient, with a t-statistic of 11.667 ($p < 0.001$). This once again underlines that investor sentiment has the power to enhance the transparency effects of IFRS adoption.

Finally, Hypothesis 5, for increased foreign investment following adopting IFRS in Hungary due to improved investor confidence, was partly supported because: Financial transparency had a positive association with foreign investment; the coefficient was 0.0015, and its t-statistic value is 0.750, $p < 0.001$. It was, however, very close to other variables' small effect size, meaning that although IFRS adoption played an essential role in bringing foreign investment, it still had some other causes.

4. DISCUSSION

The results of this study indicate that adopting IFRS in Hungary has a significant positive impact on financial transparency within the private sector, thus upholding the primary hypothesis that IFRS enhances transparency, which is fundamental in fostering economic stability and attracting foreign investment. These findings are consistent with previous research, showing the benefits of IFRS adoption in terms of both transparency and investor confidence. These are among other studies by Tarca (2020) and Prather-Kinsey et al. (2022), showing that the adoption of IFRS in different jurisdictions improved the comparability of financial reports. The increased level of IFRS adoption is expected to be reflected in improved transparency and comparability of financial reports in Hungary. These are very significant steps to create investor trust through compliance with international standards. The reported increases in investor confidence and foreign investment after IFRS adoption are consistent with the findings of Albu et al. (2013) and Comporek (2023) in other cases: IFRS adoption has resulted in a restoration of investor confidence and improved financial management practices. Unique to this study is its focus on Hungary, a country currently wrestling with integrating its financial reporting into wider European Union standards.

Although global studies have documented the positive impacts of IFRS adoption, this research adds a regional perspective by showing that Hungary's IFRS adoption not only supports EU regulations but also significantly improves financial transparency in an economy in transition. Furthermore, the results of this study help to confirm that the benefits that IFRS has across economic and regulatory environ-

ments are wide applicable. Therefore, it can be said that even in countries with quite different financial landscapes, adopting IFRS could result in similar outcomes with respect to the transparency and investor confidence it results in.

In fact, such a positive link between the factors of IFRS adoption and financial transparency in Hungary can be linked to several reasons. Strict disclosure requirements ensure that financial statements present an accurate and fair view of a company's financial performance and position, which is critical for maintaining public trust. The significant role of implementation costs and legislative changes suggests that the financial and regulatory investments associated with IFRS adoption are essential to achieving high transparency. Even though painful, the initial costs are paid off by the potential long-term benefits, including increased investor confidence and foreign investments. Also, the study affirms the role of the training programs in adopting IFRS. By verifying a positive correlation between the improvement in training and transparency, there is a need for an even more continual professional training regime to keep the quality standard in financial reporting under IFRS, as discussed in the literature.

These findings would indicate that other future studies into the lasting impacts of IFRS adoption in the face of potential economic ebbs and regulation changes should be incorporated. Its adoption among non-listed companies and public sector entities should better expose it to the broader economic effects. If achieved without adding undue complexity, harmonizing national laws with IFRS could present significant improvements in transparency and investor confidence throughout the European Union.

CONCLUSION

This paper has been designed to estimate how adopting International Financial Reporting Standards affects financial transparency in Hungarian local governments. The results indicate that adoption does increase financial transparency by 75% on average among sample companies. The increase is related to increased training programs, higher implementation costs, and more frequent legislative changes.

Results show that while implementing International Financial Reporting Standards initially seems relatively high-cost and even challenging, its short-term costs and difficulties are far outweighed by long-term benefits, particularly for increased investor confidence and foreign investment. Specifically, there were 65 percent gains in investor confidence and 12 percent increases in foreign investment following adopting the standards.

This study pinpoints the need for ongoing financial and regulatory investments and high-quality training programs to maintain and improve financial transparency.

In summary, implementing International Financial Reporting Standards in Hungary has successfully facilitated financial transparency, which is considered one of the most crucial aspects that lead to more economic activities and the inflow of more foreign investments. In brief, there is a solid reason to support and extend the application of these standards in financial reporting to more sectors.

AUTHOR CONTRIBUTIONS

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