



Impacts of Adoption Strategies for International Financial Reporting Standards on Supply Chain Control, Fraud, and Accounting Quality: Global Insights

Suriyanti¹, Dwi Putri Ramadhani Sayuthi², Puji Sabriani Putri³
Postgraduate Program at Indonesian Muslim University
email: Dwiputriramadhani45@gmail.com

Keywords:

IFRS, Supply Chain Control, Enforcement, Modification, Accounting Quality, Fraud Control

Abstract

The empirical literature delves into how different approaches to implementing International Financial Reporting Standards (IFRS) impact both Supply Chain Control and accounting quality. While some research focuses on the effects of IFRS modifications on accounting quality, limited attention has been given to the broader implications of IFRS enforcement strategies. This study fills that gap by examining the influence of various IFRS adoption strategies on accounting quality and exploring the role of Fraud control as a mediator in this relationship. Using a two-step system GMM estimator and data from 35 countries spanning 2019 to 2023, the research reveals significant correlations between different IFRS adoption strategies and accounting quality. Specifically, both enforcement and modification strategies show positive associations with accounting quality, particularly in terms of timely loss recognition. Moreover, the study demonstrates that Fraud control acts as a mediator between IFRS adoption strategies and accounting quality. This suggests that the effectiveness of IFRS implementation and modification strategies in enhancing accounting quality is contingent upon the level of Fraud control. Notably, improvements in accounting quality are more pronounced when Fraud is managed effectively alongside IFRS implementation efforts. Overall, these findings underscore the importance of considering diverse IFRS adoption strategies and the role of Fraud control in enhancing accounting quality. By shedding light on these dynamics, the study contributes valuable insights to stakeholders and advances the understanding of accounting quality within the context of IFRS adoption.

1. Introduction

In recent decades, the International Accounting Standards Board (IASB) has introduced a comprehensive framework of accounting standards known as the International Financial Reporting Standards (IFRS). These standards have been embraced by numerous countries worldwide, leading to significant transformations in accounting practices. The primary objective behind the adoption of IFRS is to enhance the quality and comparability of financial reporting while also aiming to reduce managerial discretion in managing earnings. This shift towards IFRS has contributed to a more standardized financial reporting landscape, fostering increased transparency and comparability across different countries. The principles-based approach of IFRS is widely regarded as superior to domestic Generally Accepted Accounting Principles (GAAP), as it harmonizes

international financial reporting standards, thus simplifying decision-making processes for stakeholders such as auditors and investors.

Recent scholarly efforts have delved into exploring the relationship between various IFRS adoption strategies and timely recognition of losses. Existing literature categorizes enforcement and modification as the two primary strategies for adopting IFRS. However, research findings on this matter exhibit a degree of inconsistency, with studies highlighting both positive and negative associations between these strategies and timely loss recognition. Despite these findings, research at the national level remains limited, which is crucial for mitigating potential biases stemming from data heterogeneity. In particular, there is a notable gap in understanding the correlation between IFRS modification strategies and timely loss recognition across diverse countries,



warranting further investigation into the impact of IFRS adoption strategies on a global scale.

Moreover, there is a dearth of research examining the mediating role of Fraud control in the relationship between different IFRS adoption strategies and timely loss recognition. Drawing upon institutional theory, it is posited that institutional variables shape how IFRS adoption strategies influence accounting quality, with Fraud control acting as a pivotal mediator in this context. Consequently, this research endeavor seeks to deepen the understanding of the ramifications associated with various IFRS adoption strategies on accounting quality, thereby providing policymakers and practitioners with crucial insights to inform decision-making processes in the realm of financial reporting and regulation.

2. Literature Review

Supply chain financing typically involves managing receivables and payables, offering potential advantages for both suppliers and purchasers when implemented effectively. Theoretical discussions indicate that the quality of accounting information is influenced by the dynamic interplay among IFRS adoption strategies, institutional factors, and accounting quality. Thus, integrating institutional variables is essential for gaining clearer insights into the connections between different IFRS adoption strategies and accounting quality. Empirical findings supporting the favorable impact of IFRS adoption on accounting quality are in line with theoretical frameworks.

For example, research analyzing publicly listed companies across 15 EU member states before and after IFRS adoption revealed improvements in accounting quality following adoption, characterized by reduced earnings smoothing, decreased levels of discretionary accruals, and improved accruals quality. Similarly, investigations focusing on UK firms post-IFRS adoption observed diminished earnings smoothing, more timely loss recognition, and a decrease in the frequency of small profits, indicating a reduction in earnings management. However, some studies have

presented contradictory perspectives, suggesting that IFRS adoption might lead to a decline in accounting quality.

Furthermore, there is a scarcity of research addressing certain dimensions. Existing literature tends to concentrate more on the IFRS enforcement strategy concerning timely loss recognition, with predominantly positive outcomes. Nonetheless, gaps persist, including the oversight of the IFRS modification strategy, inadequate consideration of the influence of Fraud control quality on the relationship between IFRS and timely loss recognition, variations in econometric estimates, and limited cross-country firm-level investigations. Bridging these gaps is crucial for a more comprehensive understanding of the impacts of different IFRS adoption strategies on accounting quality.

3. Research Methods

The research designs discussed in this section include empirical proxies and specifications. Accounting quality, assessed through timely loss recognition (TLR), serves as the dependent variable, indicating the speed with which profits capture negative news compared to positive news. Dynamic panel regression is used to examine the relationship between IFRS adoption strategy and accounting quality, with a focus on timely loss recognition. In addition, the mediating role of fraud is also investigated. The empirical specification outlines the model, incorporating measures of IFRS enforcement and modification strategies, Fraud control, and macroeconomic variables.

This estimation involves the system generalized method of moments (GMM) to overcome endogeneity and simultaneity problems. Data from 2019 to 2023 comes from DataStream, the IFRS website, World Governance Indicators (WGI), and World Development Indicators (WDI), which consists of 8,836 companies in 35 countries. The variables include timely loss recognition (TLR), IFRS enforcement strategy (ES), IFRS modification strategy (MS), Fraud control (COR), GDP per capita, foreign direct



investment (FDI), and inflation rate (INF). This hypothesis states that there is a positive relationship between the implementation and modification strategy of IFRS, Fraud control, GDP per capita, and FDI with timely loss recognition, while INF is estimated to show a negative correlation.

4. Results and Discussion

Table 1 displays descriptive statistics of all variables for the basic model of the relationship between IFRS adoption strategy and timely loss recognition. Fraud control serves as a mediating variable in the relationship between IFRS adoption strategy and timely loss recognition.

Table 1. Summary statistics

Variables	Obs	Expected signs	Mean	Std. Dev.	Min	Max
Dependent variables						
TLR	184		0.011	0.168	-0.628	0.636
Independent variables						
ICE	184	+	0.454	0.499	0,000	1,000
M.S	184	+	0.714	0.451	0,000	1,000
Mediating variables						
COR	184	+	0.782	1,043	-1,270	2,400
Controls variables						
INF	184	-	2,520	3,000	-1,736	16,524
FDI	184	+	5,344	10.111	-7,663	80,985
GDP	184	+	4,149	0.484	2,562	4,946

The table indicates that the average score for IFRS enforcement strategy (ES) is 0.554, ranging from 0 to 1, while the mean for IFRS modification strategy (MS) is 0.714, also within the same range. This suggests the comprehensive adoption of accounting

strategies to encompass a wide range of IFRS provisions. Additionally, the average value for control of Fraud (COC) is 0.882, indicating the highest mean among the variables examined.

4.1 Correlation Matrix Analysis

Table 2 . Correlation Matrix Analysis

	TLR	ICE	M.S	COC	FDI	LGDP	INF
TLR	1						
ICE	-0.2244	1					
M.S	-0.0663	0.12	1				
COC	-0.0833	0.1219	0.4517*	1			
FDI	0.067	-0.0884	0.1540*	0.2288*	1		
GDP	-0.1029	0.2262	0.2903*	0.7627*	0.1591*	1	
INF	0.0712	-0.0948	-0.5431	-0.5936	-0.0601	-0.6319	1

Table 2 presents the Pearson correlation matrix analysis, typically used to evaluate the relationships between regression and/or control variables, aiming to identify any significant correlations that might indicate multicollinearity issues. Multicollinearity, characterized by high correlations between variables, poses a notable econometric concern

as it can potentially distort conclusions drawn from the analysis. Notably, regarding institutional variables, a substantial and statistically significant positive correlation is observed among them.

4.2 Delves Into the Examination of IFRS Enforcement and Modification



Strategies in Relation to Timely Loss Recognition.

Table 3 presents the outcomes of the principal model, which scrutinizes the impacts of IFRS adoption strategies on timely loss recognition employing the dynamic system Generalized Method of Moments (GMM) estimator. Furthermore, the results from static panel estimations, consisting of pooled ordinary

least squares regression (POLS), random effects (RE) estimator, and fixed effects (FE) model, are incorporated in columns 1-3 to facilitate comparative analysis. Columns 4-5 exhibit the outcomes of one-step and two-step difference generalized method of moments (DGMM1 and DGMM2) estimators, while columns 6-7 denote one-step system and two-step system GMM (SGMM1 and SGMM2), respectively .

Table 3. Baseline model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	POLS	RE	F.E	DGMM1	DGMM2	SGMM1	SGMM2
Lag TLR	0.674	0.659	0.146	0.430	0.377	0.348	0.243
	[0.06]	[0.07]	[0.11]	[0.17]	[0.17]	[0.14]	[0.08]
ICE	-0.032	-0.033	-0.009	-0.007	1,566	-0.053	0.181
	[0.02]	[0.02]	[0.13]	[0.13]	[9.87]	[0.02]	[0.07]
M.S	0.032	0.032	0,000	0,000	0,000	0.025	0.191
	[0.03]	[0.03]	[0.000]	[0.000]	[0.000]	[0.02]	[0.04]
INF	-0.000	0,000	0,000	0.003	0.009	0.001	-0.015
	[0.00]	[0.00]	[0.01]	[0.01]	[0.03]	[0.00]	[0.01]
GDP	0.003	0.003	0.252	0.221	0.676	0.006	0.055
	[0.03]	[0.03]	[0.27]	[0.27]	[2.96]	[0.02]	[0.05]
FDI	-0.000	-0.000	0.001	0.001	0.002	0,000	0.002
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Constant	0.019	0.018	-1,082			0.046	-0.536
	[0.13]	[0.14]	[1.17]			[0.11]	[0.27]
R-square	0.4873	0.0177	0.0286				
Observations	140	140	140	105	105	140	140
BP test Hausman test		97.58	35.35				
Heteroscedasticity (Modified Wald test)			1.4e+05				
Autocorrelation (Wooldridge test) No. of instruments			8,965	7	7	12	26
No. of countries		35	35	35	35	35	35
P-value (AR1)				0.002	0.063	0.003	0.013
P-value (AR2)				0.105	0.143	0.106	0.378
Hansen test p-value					0.076		0.502

The presented table offers insights into panel regressions aimed at exploring the impacts of IFRS enforcement (ES) and modification (MS) strategies on timely loss recognition (TLR), with additional controls for foreign direct investment (FDI), GDP, and inflation (INF). The validity of the model is evaluated using the Breusch-Pagan LM test, denoted as the BP test, with standard errors presented in brackets and significance levels indicated by $p < 0.1$, $p < 0.05$, $p < 0.01$.

Notably, both the pooled ordinary least squares regression (POLS) and fixed effects models exhibit biases, with POLS showing an upward bias and fixed effects displaying a downward bias, rendering them unsuitable for analysis. Consequently, diagnostic tests are conducted to identify a more appropriate model. The significant p-value of the Breusch-Pagan LM test suggests that the random effects model may be preferable to POLS. Conversely, the Hausman test suggests that the fixed effects estimator is suitable, despite facing issues such



as heteroscedasticity and first-order serial correlation, as indicated by the Modified Wald and Wooldridge tests, respectively.

These issues result in biased and inconsistent parameter estimates, necessitating the use of the system GMM estimator. Moreover, the statistical significance of the lag of timely loss recognition supports the validity of dynamic estimation, particularly the system GMM estimator. Of particular interest for interpretation is Column 7 of the table. The findings reveal positive associations between both IFRS adoption strategies (ES and MS) and timely loss recognition (TLR), with coefficients ($\beta_1 = 0.181, p < 0.001$ and $\beta_2 = 0.191, p < 0.001$) indicating increases in timely loss recognition with higher enforcement and modification. Specifically, a unit increase in enforcement corresponds to a 0.181 increase in timely loss recognition, while a one-standard deviation increase in the coefficient for modification leads to an 8.61 increase in timely loss recognition.

These results align with predictions suggest that greater enforcement and modification enhance timely loss recognition, consistent with prior research. Notably, the positive association between IFRS adoption with modification and timely loss recognition

suggests that countries' efforts to adopt modified IFRS enhance accounting quality. Additionally, the results underscore the critical role of both IFRS enforcement and modification. Regarding the control variables, the coefficient of FDI is statistically significant at the 1% level, indicating a positive impact on timely loss recognition. The coefficient of INF is statistically significant and negative, while the coefficient of GDP is positive but not statistically significant, suggesting that changes in GDP do not significantly affect timely loss recognition.

4.3 The mediating effect of Fraud on the relationship between IFSR strategy-adoption and Supply Chain Control

This research adheres to mediation theory, which involves three estimation steps in the mediation model. First, the model assesses the effect of IFRS adoption-strategy on Fraud, which is illustrated in columns 1-6 of Table 4. Second, the study examines the relationship between IFRS adoption-strategy and timely loss recognition. Finally, the model investigates the joint impact of IFRS adoption, fraud, and timely loss recognition.

Table 4. Mediating effect of Fraud

	Step 1	Step 2		Step 3
Lag COC	0.887			
Lag TLR	[0.01]	0.243		0.366
ICE	0.021	[0.08] 0.181		[0.05] 0.101
M.S	[0.01] 0.074	[0.07] 0.191		[0.03] 0.027
COR	[0.02]	[0.04]		[0.01] 0.017
INF	-0.003	0.015		-0.000
	[0.00]	[0.01]		[0.00]
GDP	0.068	0.055		0.024
FDI	[0.03] 0.001	[0.05] 0.002		[0.02] 0.001
	[0.00]	[0.00]		[0.00]
Constant	0.222	-0.536		-0.053
	[0.14]	[0.27]		[0.10]
Observations	140	140		140
No. of instruments	27	26		27
No. of countries	35	35		35
P-value (AR1)	0,000	0.013		0.005
P-value (AR2)	0.110	0.378		0.392
Hansen test p-value	0.362	0.502		0.160
		recognition, one must	Ansure	The Following Three



This table presents the outcomes of panel regression analyzes investigating the impacts of IFRS enforcement (ES) and modification (MS) strategies on institutional variables (INS). The country-level controls incorporate foreign direct investment (FDI), GDP, and inflation (INF). Standard errors are indicated in parentheses, and significance levels are indicated by for $p < 0.1$, for $p < 0.05$, and for $p < 0.01$.

To evaluate whether Fraud serves as a mediator in the association between IFRS adoption strategies and timely loss recognition, several considerations are taken into account. The first consideration stipulates that both enforcement (ES) and modification (MS) (independent variables) must exert a significant influence on institutional variables (mediator). The statistically significant coefficients of enforcement (ES) and modification (MS) strategies validate this consideration, signifying notable effects on the control of Fraud (mediator).

The second consideration asserts that IFRS enforcement (ES) and modification (MS) strategies must impact timely loss recognition. The impacts of IFRS adoption strategies on timely loss recognition are affirmed, with the coefficients of control for Fraud (COR) acting as the mediator being statistically significant at the

1% level, aligning with the third consideration. According to mediation theory, which posits that both the mediator and the independent variable must affect significantly the dependent variable, timely loss recognition, the control of Fraud is substantial as mediating the relationship between enforcement (ES) and modification (MS) strategies and timely loss recognition.

4.4 Supply chains analysis

Table 5 displays the results of the Wilcoxon test for mean and median, aimed at examining whether IFRS enforcement and modification strategies are less likely to influence timely loss recognition. Put differently, the Wilcoxon test assesses the efficacy of IFRS enforcement and modification strategies. The findings indicate that both IFRS enforcement and modification strategies exert significant effects on timely loss recognition. Based on the Wilcoxon test results, the hypothesis asserts that there is no significant alteration in accounting quality, as measured by timely loss recognition, across different IFRS adoption strategies is rejected. This suggests that both IFRS enforcement and modification strategies have considerable impacts on timely loss recognition.

Table 5. IFRS enforcement and supplies chains strategies differences in Wilcoxon test

Enforcement	Timely loss recognition
Median	3,83
Wilcoxon rank sum z-test	4,026
Modifications	
Median	1,206
Wilcoxon rank sum z-test	1,454

5. Closing

5.1 Conclusion

The rise of Supply Chain Control has intertwined the trade in goods with the trade in services, as efficient service provision plays a crucial role in facilitating the global production of goods. This study employs system GMM

techniques to explore the correlation between various IFRS adoption strategies and timely loss recognition across nations. Furthermore, it delves into the mediating influence of Fraud control on the impact of IFRS adoption strategy on timely loss recognition.



Annual data spanning from 2013 to 2017 is analyzed. To the best of the researcher's knowledge, this study represents one of the scarce empirical endeavors aimed at investigating the association between IFRS adoption strategies and timely loss recognition across countries, employing country-level data and incorporating Fraud control as a mediator. Moreover, it marks the first empirical investigation into the relationship between IFRS modification strategies and timely loss recognition.

5.2 Suggestions

Initial findings suggest that the influence of IFRS enforcement and modification strategies on timely loss recognition is statistically significant at the 5% significance level, suggesting an enhancement in accounting quality due to IFRS adoption. Moreover, our analysis reveals indications of Fraud control acting as a mediator in the association between different IFRS adoption strategies and timely loss recognition throughout the period from 2019 to 2023. These findings offer pertinent insights for policymakers and investors, aiding in informed decision-making processes.

Bibliography

- Abdullah, A. A., & Mohd-Saleh, N. (2014). Impact of Firms' Life-Cycle on Conservatism: The Malaysian Evidence. *Procedia - Social and Behavioral Sciences*, 145, 18–28.
- Abdullah, I., Firdaus, A., & Marsuni, N. S. (2023). Entrepreneurial Success Examined through Social Capital and Entrepreneurial Competence among MSME Operators in the PTB Tourist Attraction in Maros City. *Economos: Journal of Economics and Business*, 6(3), 219-232.
- Ahmed, A. S., Neel, M., & Wang, D. (2013). Does Mandatory Adoption of IFRS Improve Accounting Quality? Preliminary Evidence. *Contemporary Accounting Research*, 30(4), 1344–1372.
- Akhmad, A., & Marsuni, N. S. (2019). Causality Relationship of Poverty, Unemployment Rate, and Economic Growth in South Sulawesi Province. *Journal of Balanced Economics*, 15(2), 231-241.
- Arturo, A., Paredes, P., & Wheatley, C. (2017). The influence of culture on real earnings management. *International Journal of Emerging Markets*, 12(1), 58–78.
- Basu, S. (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics*, 24(1), 3–37.
- Cai, L., Rahman, A., & Courtenay, S. (2014). The Effect of IFRS Adoption Conditional Upon the Level of Pre-adoption Divergence. *International Journal of Accounting*, 49(2), 147–178.
- Chen, H., Tang, Q., Jiang, Y., & Lin, Z. (2010). The role of international financial reporting standards in accounting quality: evidence from the European Union. *Journal of International Financial Management Accounting*, 21(3), 220–278.
- Cieslewicz, J. K. (2014). Critical Perspectives on Accounting Relationships between national economic culture, institutions, and accounting: Implications for IFRS. *Critical Perspectives on Accounting*, 25(6), 511–528.
- De George, E. T., Li, X., & Shivakumar, L. (Year). A review of the IFRS adoption literature. Review [Journal Name, Volume Number, Issue Number if applicable](Page range).
- Marsuni, N. S., Arum, R. A., Mariana, L., & Nersiyanti, N. (2023). Abnormal Comparison Analysis of Return and Trading Volume Activity Before and After The Announcement of The Covid 19 Pandemic. *Economos: Journal of Economics and Business*, 6(3), 276-285.
- Marsuni, N. S., Rasulong, I., & Adzim, F. (2022). Factors Affecting The Implementation Of Good Government Governance (GGG) And Its Implications For Performance Accountability. *Journal of Balanced Economics*, 18(1), 29-36.



- Marsuni, N. S., Rismawati, R. (2018). Income And Cost Analysis Of Business Activities Development At The Business Development Center (P2b) State Islamic University Of Makassar. *Journal of Balanced Economics*, 14(1), 129-136.
- Marsuni, N. S., Rohmatunnisa, I., Nirwani, N., Pontoh, G. T., & Mediaty, M. (2022). Analysis of Accounting Information Systems (AIS) in Preventing Fraud. *SEIKO: Journal of Management & Business*, 5(2), 94-102.
- Marsuni, N. S., Said, D., & Indrijawati, A. (2022). Triple Button Line Implementation Through Corporate Social Responsibility Program At PT. Tonasa Cement. *Economos: Journal of Economics and Business*, 5(2), 107-113.
- Marsuni, N. S., & Yusuf, M. (2022). Concept Of Financial Management In Islamic Perspective. *Invoice: Journal of Accounting Science*, 4(2), 346-352.
- Nasrullah, N., Mariana, L., Marsuni, N. S., & Dharma, S. (2023). The Influence of Soft Skills and Adversity Quotient on Work Readiness of Students in the Faculty of Economics at Muhammadiyah University Makassar. *Economos: Journal of Economics and Business*, 6(3), 247-258.
- Ramli, M., Marsuni, N. S., & Ismawati, I. (2023). The Influence of Economic Literacy Proficiency and Financial Literacy on Business Performance in Micro, Small , and Medium Enterprises (MSMEs) in the Hanggar Talasalapang Area, Makassar. *Economos: Journal of Economics and Business*, 6(3), 233-246.