Impact of IFRS Application on Firm Performance Through Disclosure Quality

Nha Nguyen Minh[1,2(✉)], Duong Nguyen Van[1], and Hai Tran Thi Thanh[1]

[1] School of Accounting, University of Economics Ho Chi Minh City, Ho Chi Minh City 700000, Vietnam
nhanguyen.ncs2020014@st.ueh.edu.vn
[2] Tien Giang University, My Tho 860000, Vietnam

Abstract. The paper examines the change of firm performance of listed companies by considering the influence of IFRS application. Furthermore, the mediating effect of disclosure quality is also considered in this study with Southeast Asian countries context. The application of IFRS has had a huge impact on the quality of financial reporting and thus increasing company performance. However, there has been a lack of studies integrating these factors into the same research model. The five-year dataset of companies listed on stock exchange of Southeast Asian countries during the period from 2017 to 2021 is used to investigate hypotheses. Additionally, we use the feasible general least squares estimation method to test the robustness of GMM estimation method results. The results exposed that there is positive and substantial influence of IFRS application on firm performance, which suitable for agency theory and economic theory of networks. Moreover, disclosure quality mediates the nexus between IFRS application and firm performance in Southeast Asian countries. According to the study's outcomes, the higher the disclosure quality, the less information is omitted. That is, the information presented in the financial statements is disclosed more fully and carries more relevant value. This contributes to a higher financial firm performance. Therefore, companies need to improve the disclosure quality of financial statements by improving the level of omission of material items, especially by speeding up the application of IFRS in countries.

Keywords: Disclosure quality · Firm performance · IFRS application · Southeast Asian countries

1 Introduction

The application of IFRS is the global requirement and has attracted the special attention of researchers and policymakers. Many recent studies have focused on looking at the direct impact of IFRS on the quality of financial statements. Studies on the voluntary application of IFRS by enterprises have shown consistent results, in contrast to the research results on the compulsory application of IFRSs, the results are mixed [1]. However, this conclusion changes as later studies focus on capital market-based reporting quality or capital market outcomes of IFRS application, such as stock liquidity, trading volume, etc. or stock price

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volatility with respect to earnings disclosed in financial statements [2]. It should be noted that whether these results are due to the adoption of IFRS or to other institutional changes that coincided with the adoption of IFRS have not been clarified [1]. Recently, studies have focused on the influence of the application of IFRS standards on the performance of enterprises. However, the results of these studies are quite different. Many studies report a positive relationship between IFRS application and firm performance [3]. In contrast, a few studies have had negative results [4]. Several studies identified no significant changes in performance [5]. This difference is due to different research contexts [6] or the way performance is measured in research [5].

Most previous studies have examined the effect of applying IFRS standards on firm performance directly [7]. Few studies have examined this effect in the context of the effect of disclosure quality on performance. The success of the company is basically explained by the performance of the company over a certain period of time. Rosenbusch, et al. [8] have shown that Asian countries are more likely to exhibit a positive impact of innovation on firm performance because their cultural environment is characterized by collectivism that promotes corporate performance. Promote social interaction and collaborative group behavior conducive to innovation. From their respective studies in Nigeria and Ghana, Adeyeye, et al. [9] as well as Robson, et al. [10] found that innovation has a positive impact on firms' performance. The sites of this study are the developing countries of Asia and Africa, where policymakers are promoting innovation as a necessary component of economic development [11]. Most mainstream economists tend to argue that openness and easy access to foreign technology are all that matters in improving the productivity of firms in the context of developing countries. Development [12]. Wadho and Chaudhry [13] suggest that much of this lack of expertise can be attributed to the limited availability of detailed firm-level data on innovation processes in developing countries. Furthermore, despite their interest in IFRS, developing countries may lack a well-established institutional mechanism for implementing IFRS and resources for the training and development of accounting professionals as well as financial professionals. This country is facing resistance from the accounting community [14].

According to Nguyen [15], recent studies have mainly focused on the process of accounting harmonization in developed countries rather than the process in developing countries like Vietnam. Countries with developing economies have many differences in terms of institutions, laws and economic characteristics. IFRS does not give any specific guidelines and accountants can do their accounting work in a more flexible way. Countries like Vietnam require more time and effort than just complying with regulations, especially since human resources and accounting systems in developed countries are not strong enough to meet the requirements of adoption. International accounting standards. IFRS was developed on the basis of the economies of developing countries, but this would not be complete without the harmonization of accounting practices in developing countries such as Vietnam. To our knowledge and statistics, very few studies on the relationship between IFRS application and performance have been published with a sample of developing countries and especially Vietnam.

Thus, the current study goes further by examining the impact of IFRS application on firm performance of listed companies in the context of developing nations in Southeast Asian area. We also investigate the mediating influence of disclosure quality in this context. Our sample comprises five-year dataset of companies listed on stock exchange of six Southeast Asian countries (Indonesia, Thailand, Philippines, Singapore, Malaysia and Vietnam) during the period from 2017 to 2021. The findings demonstrate that there is positive and substantial influence of IFRS application on firm performance, which suitable for agency theory and economic theory of networks. Moreover, disclosure quality mediates the nexus of IFRS application and firm performance. Our research has several academic and experimental contributions as follows. Firstly, previous studies much focus on direct effects of IFRS application on firm performance than other effects. Therefore, our paper demonstrates the direct influence of IFRS application on firm performance by considering the mediating influence of disclosure quality. Secondly, this study's findings offer decision-makers with more nuanced explanations for the influence of disclosure quality on the relationship of IFRS application and firm performance. Decision makers, such as present and potential investors, may utilize these insights to make sound decisions by using disclosure quality as indicators to forecast future firm performance. Moreover, policymakers may utilize these findings to produce guidelines that can improve firm performance levels by focusing on the role of IFRS application and disclosure quality.

The article is presented as follows. Section 2 presents literature review and hypotheses development. Section 3 is about data and methods. Section 4 exhibits empirical results and discussion. Section 5 delivers the main conclusions and the limitations of the current paper.

2 Literature Review and Hypothesis Development

In recent years, studies have paid much attention to the effect of applying IFRS standards on the performance of enterprises directly. Research on the effect of applying IFRS standards on ROA and ROE is a popular research direction with fairly consistent results. Hou, et al. [16] showed that improvements in ROA vary across regions with different institutions and across firms with different levels of adoption. However, the short analysis selection period and only the sensitivity analysis of ROA based on the accounting of executive compensation are limitations of this study. Abdullahi, et al. [17] examine the effect of the adoption of IFRS standards on the performance (ROA and ROE) of oil and gas marketing firms in Nigeria. This study has found that IFRS application has a significant positive relationship with the ROA and ROE ratios of oil and gas enterprises in Nigeria. However, the small sample size and short analysis selection time are limitations of this study. Moreover, Miah [18] studies the effect of applying IFRS standards on some Chinese listed companies. The results show that, compared with the pre-IFRS regime, the performance of enterprises improved significantly after the IFRS standards were applied. Furthermore, the implementation of global accounting standards is bringing about a positive change in capital markets through the growth of businesses in terms of profitability. However, this study cannot exclude the probability of other externalities that may affect the experimental results. In addition, Abdullah and

Tursoy [7] empirically examined the relationship between firm performance and capital structure with the prefix IFRS application. The results obtained from the study indicate that the application of IFRS standards has increased the performance of enterprises, while it weakens the relationship between capital structure and firm performance.

According to Li, et al. [19], the impact of mandatory application of IFRS on disclosure quality has three main research directions: (1) studies that infer (or assume) changes in public quality disclosure based on the difference in economic consequences before and after the application of IFRS, (2) studies examining changes in the attributes of several accounting variables, and (3) studies using self-developed disclosure quality measures. Studies in the first direction often suggest that IFRS improves disclosure quality, as evidenced by predictable changes in the cost of equity [20], cost of debt [21], market liquidity [22] and market response to earnings announcements [23] around the adoption of IFRS These studies do not directly assess the change in disclosure quality but assume that the larger the difference between IFRS and national GAAP prior to IFRS application, the higher disclosure quality is improved. Another research direction is to look at changes in the attributes of some accounting variables with different results. With comparability, Yip and Young [24] find that the adoption of IFRS increases accounting comparability, however, Cascino and Gassen [25] report that any increase in comparability of financial statements due to IFRS at the best margin. In addition, Barth, et al. [26] argue that the quality of financial reporting under IFRS is better than the quality under national GAAP. In contrast, Ahmed, et al. [27] found that the adoption of IFRS resulted in lower financial reporting quality, while Atwood, et al. [28] reported no effect on quality. For the last research direction, several recent studies suggest direct measures of disclosure quality changes specifically related to financial reporting. Some common measures such as the degree of separation of accounting data through the number of omitted items [19], absolute forecast error [29], multi-aspect composite indexes [30] and score measures calculated from indicators on financial statements main [31]. These studies all show a positive effect of IFRS application on disclosure quality with different levels.

Several studies examine the impact of financial disclosure quality on financial performance indicators and show a significantly positive relationship [32, 33]. In which, most of the studies have identified disclosure quality scores/indexes calculated according to specific models based on financial information [34, 35]. Although Jiao [32] uses disclosure ratings as a proxy for disclosure quality, it still shows a positive relationship. However, the use of other types of disclosure ratings or corporate governance ratings may result in a different outcome. Another direction of research is to examine the impact of disclosure quality on a particular aspect on performance. In which, studies focus on the quality of environmental publications [36] and all show its positive impact on operational efficiency. In addition, some studies show a positive impact of non-financial disclosure quality [37] or the disclosure quality of intellectual capital [38] on firm performance. The main limitation of these studies is that they only focus on one specific aspect, and cannot represent in general the relationship between disclosure quality and performance.

Recently, agency theory has been used to explain and predict firms' choices about accounting practices. The theory hypothesizes that accounting choices are likely to be determined by those managements within the company that want to affect reported earnings and capital structure in imperfect markets. Applying IFRS is the accounting

choice that managers want to increase the quality of income as well as operational efficiency. According to this theory, IFRS reduces information asymmetry and increases disclosure quality by improving the accuracy of claims [29, 30]. Furthermore, agency theory is the basis for examining the impact of disclosure quality on performance [36].

Agency theory assumes that accounting choices are likely to be determined by the firm's management wanting to affect earnings reported in imperfect markets. Furthermore, developing countries can be viewed as imperfect markets [39]. Therefore, adopting IFRS is the accounting choice that business managers in these countries want to have some impact on earnings. In addition, performance is often measured against income-related metrics. This indicates that switching to IFRS standards has an impact on agency performance. Furthermore, according to the economic theory of connectivity, IFRS has a suitable value for developing countries when the value of domestic GAAP is smaller than the automatic value as well as the synchronous value of IFRS. Previous studies have shown that the application of IFRS will bring many benefits to countries [40, 41]. As a result, the net economic and political value of IFRS as well as the synchronized value of IFRS exceeds that of developing country GAAP. This indicates that the transition to IFRS standards has an impact on performance under the economic theory of interconnected networks. Hence, hypothesis 1 is proposed as follows:

Hypothesis 1: *IFRS application has a positive impact on firm performance in developing countries and Vietnam.*

According to agency theory, IFRS reduces information asymmetry and increases disclosure quality by improving the accuracy of claims [30]. Furthermore, agency theory is the basis for examining the impact of disclosure quality on performance [36]. This indicates that the transition to applying IFRS standards has an impact on disclosure quality that is within the framework of agency theory. In addition, a number of previous studies have shown a positive relationship between IFRS application and disclosure quality in all three directions: (1) studies that infer (or assume) qualitative changes the amount of disclosure based on the difference in economic consequences before and after the application of IFRS [21], (2) studies looking at changes in the attributes of several accounting variables [42] and (3) studies using self-constructed disclosure quality measures [19]. Therefore, the below hypothesis is constructed:

Hypothesis 2: *IFRS application has a positive impact on the disclosure quality in developing countries and Vietnam.*

Agency theory is interested in finding a mechanism by which the owner (with less information) can best benefit from the efforts of the agent (with more information and differentiated interests). Disclosure quality is not good because information asymmetry makes financial statements unreliable. At that time, the quality of disclosure will affect the users of the information on the financial statements to evaluate the performance of the enterprise. Thereby, the quality of disclosure is important in the process of monitoring the activities of the representative (the board of directors) so that the business can have better performance, ensure the interests of the owner (owner, shareholder). Therefore, this theory highlights the role of disclosure quality on performance. Previous studies have shown a significant positive relationship between financial disclosure quality and

financial performance indicators [33, 34]. In addition, for a specific aspect such as quality of environmental disclosure [36], quality of non-financial disclosure [37] or quality intellectual capital disclosures [38] all show a positive impact on performance.

Agency theory shows the importance of disclosure quality, thereby, helping the performance of businesses better. Applying IFRS helps to popularize the common accounting standard system for all countries, improve the quality of information on financial statements, thereby contributing to improving the operational efficiency of enterprises. Therefore, assessing the impact of switching to IFRS standards on performance with the mediating role of disclosure quality is based on the framework of agency theory. In addition, previous studies have shown that IFRS will improve investor protection [43], reduce information asymmetry [44] and facilitate evaluating potential foreign securities investments [45]. These will increase the quality of publication and improve the operational efficiency of the business. Therefore, it is found that mediating impact of disclosure quality on the relationship between IFRS application and performance. It leads to frame the following hypotheses.

Hypothesis 3: *Disclosure quality has a positive impact on firm performance in developing countries and Vietnam.*

Hypothesis 4: *IFRS application has an indirect impact on performance through disclosure quality in developing countries and Vietnam.*

3 Methodology

3.1 Research Population and Sample

This article selected the research context in developing countries for the following reasons. Firstly, there were other laws that are believed to play a momentous role in developing countries and emerging economies [46], and they were closely related to IFRS application. In recent years, many developing countries have adopted IFRS [47] however, to be effective, the context of application must be considered. Accordingly, several studies have been carried out to examine the application context in developing countries [48] and developing markets [49]. Therefore, it is important to understand the macroeconomic motivations for IFRS application and its economic consequences in developing countries based on specific institutional settings. Secondly, current understanding of innovation (e.g., increasing disclosure quality) and its economic impact (e.g., increasing firm performance) was still narrow when it came to developing nations. More specifically, Rosenbusch, et al. [8] showed that Asian countries were more probable to display a positive influence of innovation on firm performance because their traditional environment was characterized by the collectivism promotes communal interaction and collaborative group behavior conducive to renewal. In the developing countries of Asia, policymakers were encouraging renewal as an essential component of economic growth [11]. Thus, selecting a sample from Asia developing nations could give assistance to fill this literature gap. According to Asian Development Bank, Southeast Asia's developing countries have average GDP growth and inflation rates in Asia between 2018 and 2020. Therefore, we selected some Southeast Asian countries as our research context.

We used the dataset of companies listed on stock exchange during the period from 2017 to 2021 for our analysis. We chose this period because of the COVID-19 pandemic effecting. Particularly, we wanted to consider our hypotheses during this period to add more knowledge to firm performance literature. Accordingly, selected companies must have been listing at least one year since 2017 and must be located in Southeast Asia. Therefore, we finally had a panel dataset including 1,500 company-year observations (300 companies with fulfill five-year data). Industry classification for the targeted companies according to Industry Classification Benchmark standard is industrials 15.00%, technology 4.33%, real estate 14.00%, healthcare 4.65%, consumer staples 27.67%, consumer discretionary 8.67%, basic materials 7.67%, energy 7.67% and utilities 10.33%.

3.2 Variables Measurement

This study aimed to determine performance variability in companies with and without IFRS adoption. Therefore, we measured IFRS in a binary variable, with a value of 0 (if IFRS has not been applied) and 1 (if IFRS has been applied). Within the scope of our topic, we measured performance by secondary data. Specifically, we measured firm performance according to ROA which is net income divided by total assets. ROA was utilized because it was an accurate estimate of operating efficiency, as it provided information on the extent to which the company was effectively using its resources and reduced the size variation in the effects of the company [50].

Next, we measured disclosure quality according to the degree of disaggregation of the accounting data through the number of omitted items. Particularly, we used the degree of separation of accounting data through the number of items not omitted according to the model of Chen, et al. [51] to measure the disclosure quality, Specifically, disclosure quality is calculated according to the formula [19, 51] as follows:

$$\sum_{k=1}^{7}\left\{\left(\frac{\#\,Nonmissing\ items}{\#\,Total\ items}\right)_k \times \frac{\$\,Account_k}{\$\,Total\ Assets}\right\} \div 2$$

where: Non-missing items: Number of Level I items not missed in both the Balance Sheet and the Income Statement; Total items: Total number of Level I items; Account: Value of item k; Total Assets: Total value of Level I items and k: The total of Level I items in both the Balance Sheet and the Income Statement.

Finally, we evaluated the influence of control variables on firm performance in developing countries, including capital structure (LEV), company size (SIZE), tangibility (TAN), growth (GROW), and current ratio (CR) (Table 1).

3.3 Data Analysis

Hypothesis H1 and H3 were examined by the following estimation equation.

$$\begin{aligned}\mathrm{ROA_{it}} = {} & \alpha_0 + \alpha_1\mathrm{IFRS_{it}} + \alpha_2\mathrm{DQ_{it}} + \alpha_3\mathrm{LEV_{it}} \\ & + \alpha_4\mathrm{SIZE_{it}} + \alpha_5\mathrm{GROW_{it}} + \alpha_6\mathrm{TAN_{it}} + \alpha_7\mathrm{CR_{it}} + \varepsilon_1\end{aligned} \tag{1}$$

Table 1. Measurement of the control variables

Variable	Calculation	Source
LEV	Total debt divided by total assets	Shoaib and Siddiqui [50], Miah [18]
GROW	The percentage change in Sales	Shoaib and Siddiqui [50], Shen, et al. [52]
SIZE	Natural logarithm of total assets	Shen, et al. [52], Hu and Zhang [53], Liu, et al. [54]
TAN	Proportion of total fixed assets divided by total assets	Shoaib and Siddiqui [50], Hu and Zhang [53]
CR	Ratio of short-term assets divided by short-term liabilities	Shoaib and Siddiqui [50], Shen, et al. [52]

Hypothesis H2 was tested by model (2) as follows.

$$\mathrm{DQ_{it}} = \beta_0 + \beta_1 \mathrm{IFRS_{it}} + \beta_2 \mathrm{ROA_{it}} + \beta_3 \mathrm{SIZE_{it}} + \beta_4 \mathrm{GROW_{it}} + \beta_5 \mathrm{TAN} + \varepsilon_2 \quad (2)$$

The estimation model to test Hypothesis H4 was given below:

$$\begin{aligned}\mathrm{ROA_{it}} = {} & \gamma_0 + \gamma_1 \mathrm{IFRS_{it}} + \gamma_2 \mathrm{DQ_{it}} + \gamma_3 \mathrm{LEV_{it}} + \gamma_4 \mathrm{SIZE_{it}} \\ & + \gamma_5 \mathrm{GROW_{it}} + \gamma_6 \mathrm{TAN_{it}} + \gamma_7 \mathrm{CR_{it}} + \gamma_8 \mathrm{IFRS_{it}x DQ_{it}} + \varepsilon_4\end{aligned} \quad (3)$$

First, in the process of analyzing panel data, we evaluated stationary issues of the data series. If there was no co-integration relationship in the original stationary or first order stationary table data series, the study would use a linear static panel data regression model such as original least squares (OLS), the fixed effects (FEM) and random effects (REM) estimates for analysis. However, a panel with a large number of observations over a short time series such as this study often leads to bias due to variation in variance. Therefore, we performed tests of variance for the OLS model, the FEM model and the REM model. The results showed that there is a phenomenon of variance, so the S-GMM estimation model was used to test the model. Finally, we checked the robustness of our S-GMM results by the generalized least squares (FGLS) estimation method.

4 Results and Discussion

4.1 Results

Table 2 illustrates the descriptive statistics and demonstrates the correlation matrix among all variables. Our findings indicate that the correlation of ROA with IFRS, DQ and GROW is positively and with the other variables is negatively. This suggests that IFRS and DQ positively affect firm performance. Table 2 also illustrates that the all correlation coefficients among variables are less than 0.8, so that, the independent variables are no multicollinearity.

Moreover, we conduct the test of variance inflation factor (VIF test) and our results show that all the VIF values are less than 5. Therefore, ours model does not have multicollinearity problems. Before utilizing estimation model, we used Levin, Lin, and Chu

Table 2. Descriptive statistics and correlation matrix

	ROA	IFRS	DQ	LEV	SIZE	GROW	TAN	CR
ROA	1.0000							
IFRS	-0.1061*	1.0000						
DQ	0.0637*	0.5984*	1.0000					
LEV	-0.1997*	0.0626*	0.0018	1.0000				
SIZE	-0.0745*	-0.6954*	-0.4069*	0.0735*	1.0000			
GROW	0.1012*	-0.0252	-0.0031	0.0287	0.0087	1.0000		
TAN	-0.0562*	-0.0685*	0.0295	0.0206	0.0208	-0.0115	1.0000	
CR	-0.0210	-0.1008*	-0.2476*	-0.1678*	0.0399	-0.0006	-0.0195	1.0000
Mean	0.09068	0.66667	0.88893	0.53411	11.9327	0.10586	0.32948	2.24109
Standard deviation	0.09552	0.47156	0.02866	0.29421	3.69397	0.82715	0.22640	5.67608
Note: * $p < 0.05$								

Table 3. Heteroscedasticity tests

Method	Model (1)		Model (2)		Model (3)	
	Chi2	p > chi2	Chi2	p > chi2	Chi2	p > chi2
OLS	147.36	0.000	152.32	0.000	181.89	0.000
FEM	3.0e + 06	0.000	2.7e + 07	0.000	1.2e + 06	0.000
REM	1205.61	0.000	2014.38	0.000	1217.02	0.000

test to examine the stationary for our balanced panel data. The results exposed that none of the p-values exceeded 5%. This implies that the time series variables in our study are stable and the hypothesis of the existence of unit root is rejected. Original least squares (OLS), fixed effects (FEM) and random effects (REM) methods were used to estimate the research model. However, Table 3 shows that three above methods have heteroscedasticity issue. Therefore, this study used GMM estimation method to overcome the above defects and to solve the endogenous phenomenon in our models. Table 4 illustrates a strongly substantial and positive impact of IFRS and DQ on ROA in model (1). Similarly, IFRS had a significant positive effect on DQ in model (2). In model (3), DQ mediates the nexus of IFRS application and firm performance. Most of control variables have significant effects on firm performance. Finally, the p-values of AR (2) test are greater than 0.1 in all model, so our GMM results are significant.

Additionally, we used the FGLS method to confirm the robustness of the GMM method for our models. Table 5 indicates that the coefficients of IFRS, DQ and IFRS*DQ are all statistically significant and consistent with the GMM model. Therefore, the estimated results of our model are rather robust. As a result, the direct impact of IFRS on firm

Table 4. GMM test results

Variables	Model (1)	Model (2)	Model (3)
Constant	-0.9161957*	0.935771*	-7.265088*
ROA	-	0.0348719*	-
IFRS	**0.1032497***	**0.0556857***	6.073634*
DQ	**0.7241224***	-	10.99261*
LEV	-0.0497344*	-	0.0611115*
SIZE	0.0273686*	-0.0076919*	-0.1061904*
GROW	0.0122581*	0.0006247*	0.0527284*
TAN	-0.0225787*	0.0139246*	-1.536353*
CR	-0.0002107	-	0.0064039*
IFRS*DQ	-	-	**-7.897739***
Note: * $p < 0.05$			

performance and the mediating effects of DQ on the relationship of IFRS application and firm performance in our study are reliable and meaningful.

Finally, we test the role of mediator variable by process suggested by Preacher and Kelley [55]. According to the results in Table 6, there is existed a mediator variable role at the 95% significance level in our models. More specifically, model (2): IFRS DQ firm performance yields a coefficient of -0.122 and the confidence interval of the impact has not zero value (LLCI = -0.491 and ULCI = -0.325). Therefore, our results highlight that DQ significantly mediate the nexus between IFRS and firm performance.

4.2 Discussion

Our findings show that all hypotheses from H1 to H4 are accepted. Therefore, IFRS and DQ have a positive effect on firm performance in Southeast Asia nations' companies. Similarly, IFRS positively affects to DQ in this context. Furthermore, through the results of hypotheses testing and bootstrap confidence interval analysis, it can be seen that DQ is a competitive mediators for the relationship between IFRS application and firm performance.

Our research has several academic and experimental contributions as follows. Firstly, our study can be considered as a continuation and matching with previous studies on the nexus between IFRS application and bringing many benefits to countries [21, 40, 41] when confirming that IFRS application has a positive effect on firm performance. It can be seen that the recent changes to the accounting regimes of developing countries and Vietnam can be seen as a revolution to converge with international accounting. Such convergence can provide many benefits, specifically, enhancing the transparency of financial information, improving the usefulness of disclosed information and especially improving the operational efficiency of enterprises. However, the process of applying IFRS standards at each enterprise can face many challenges. Therefore, in the process

Table 5. Robustness test

Variables	Model (1)		Model (2)		Model (3)	
	GMM	FGLS	GMM	FGLS	GMM	FGLS
Constant	-0.9161957*	-0.3446905*	0.935771*	0.8488955*	-7.265088*	-0.4385191*
ROA	-	-	0.0348719*	0.0430249*	-	-
IFRS	**0.1032497***	**0.0808682***	**0.0556857***	**0.0403063***	6.073634*	1.661335*
DQ	**0.7241224***	**0.6805086***	-	-	10.99261*	0.2164143
LEV	-0.0497344*	-0.0502982*	-	-	0.0611115*	0.0475533*
SIZE	0.0273686*	-0.0066569*	-0.0076919*	0.0004903*	-0.1061904*	-0.0069742*
GROW	0.0122581*	0.0112625*	0.0006247*	-0.0000191	0.0527284*	0.0097309*
TAN	-0.0225787*	-0.0335821*	0.0139246*	0.0103448*	-1.536353*	-0.0366467*
CR	-0.0002107	0.0002367	-	-	0.0064039*	-0.0006918
IFRS*DQ	-	-	-	-	**-7.897739***	**-1.78676***

Note: * $p < 0.05$

Table 6. Mediating effect test

Model	Coefficient	Bootstrap	
		LL CI	UL CI
(1) IFRS Firm performance	0.399*	0.074	0.171
(2) IFRS DQ Firm performance	-0.122*	-0.491	-0.325

Note: * $p < 0.05$

of applying IFRS standards, businesses in Vietnam must consider the benefits and costs, plan and estimate the transformation according to the actual situation at the enterprise, be ready for the material fluctuations that may arise in the financial statements, it is not necessary to completely remove the old platform and especially to update and anticipate future fluctuations.

Secondly, this study's findings offer decision-makers with more nuanced explanations for the influence of DQ on the nexus between IFRS application and firm performance. Furthermore, we investigate the complex association among IFRS application, disclosure quality and firm performance in the post-pandemic context of COVID-19. Specifically, our studies examine the impact of IFRS application and disclosure quality on firm performance in the same empirical model. These complement the existing literature of disclosure quality such as Qizam [33] and Temiz [34]. It can be seen that financial firm performance is greatly influenced by the published information in the financial statements. According to our research, the higher the disclosure quality, the less information is omitted. That is, the information presented in the financial statements is disclosed more fully and carries more relevant value. This contributes to a higher financial firm

performance. Therefore, companies need to improve the disclosure quality of financial statements by improving the level of omission of material items, especially by speeding up the application of IFRS in countries.

Another important contribution of this study is to confirm the usefulness of measuring DQ according to the degree of disaggregation of information. This supports to previous studies on how to determine DQ such as Chen, et al. [51] and Li, et al. [19]. Although we are only based on a sample of a few developing countries, we find that the disaggregation of the information accurately reflects the DQ. The reality shows that stakeholders do not need a complex measurement, but most importantly, a way to evaluate DQ based on information available on financial statements. Because the information is accessible and easy to understand, measuring DQ based on the degree of disaggregation of information based on the number of omitted items is useful for stakeholder assessment. In addition, measuring DQ in this way supports the adoption of IFRS in developing countries. Although controversial, IFRS has shown to increase transparency and associated value for reports. While some countries have long applied IFRS (such as Malaysia), some have not yet (such as Vietnam). This leads to a lot of items being missed and affects DQ as well as firm performance, respectively.

Finally, all control variables have positive and significant effects on firm performance. Our results show the negative and significant effect of leverage on firm performance, which is the same as the results of Shoaib and Siddiqui [50], and Miah [18]. This indicates that lower leverage is associated with increased firm performance, which is in line with trade-off theory [56] and pecking-order theory [57]. Our findings also show that firm performance decreases with firm size, supporting the agency cost hypothesis. The direction of the relationship is consistent with evidence in previous studies such as Abdullah and Tursoy [7]. The growth variable positively relates to firm performance in Southeast Asian countries. This result is inconsistent with prior studies such as Ganiyu, et al. [58]. Asset tangibility positively relates to firm performance in Southeast Asian countries. This may be explained by greater diversification ability and scales of economy for larger firms.

5 Conclusion

This study is conducted to identify the effect of IFRS application on firm performance as well as the mediating effect of disclosure quality on the nexus between IFRS application and firm performance in some Southeast Asian markets context. Specifically, we demonstrate the direct effects of IFRS application on firm performance by considering the mediating influence of disclosure quality in the same model. This paper employs the degree of disaggregation of accounting data as proxy for disclosure quality and uses GMM estimation method to solve the endogenous phenomenon on panel data in our models. Our findings demonstrate that IFRS application has a direct positive impact on firm performance. And disclosure quality is competitive mediators for the relationship between IFRS application and firm performance.

Our findings provide more comprehensive explanations for the effect of IFRS application and disclosure quality on firm performance for decision-makers. Decision-makers, such as current and prospective investors, may use these insights to make smart judgments by using IFRS application and disclosure quality as indicators to anticipate future

firm performance. Therefore, managers should consider implementing effective IFRS when authorized by the Government to raise the organization's performance. In particular, managers need to pay attention to improving the organization's disclosure quality indicators. Currently, countries want to get rid of the influence of purely financial indicators and gradually turn their attention to non-financial indicators. This leads to stricter requirements from stakeholders to create long-term value for the organization. Consequently, multinational companies need to fully comply with IFRS and regulations of host countries to enhance disclosure quality, firm performance and other non-financial indicators. Furthermore, policymakers may use these findings to provide suggestions for improving IFRS application levels by concentrating on the function of disclosure quality. Particularly, the company with an effective disclosure quality, the nexus between IFRS application and firm performance is stronger and stronger. Currently, Government's countries need to create and shape the market through measures to encourage and reduce risks in investment activities, in addition to establishing other supporting frameworks and policies. Government's countries need to work with organizations that enhance stakeholder interests both on financial and non-financial metrics in the post COVID-19 context.

Our results should be noted for some limitations. On the one hand, our research focuses on internal micro factors. Later studies may intentionally explore different outcome variables and further investigate the interactions of corporate governance attributes and other variables, thus forming a more complete theoretical framework. On the other hand, this paper only focuses on firm performance in the context of the influence of IFRS application and disclosure quality. Later studies may look at other important factors that affect firm performance in the context of applying IFRS such as income management. We include only six Southeast Asian countries with 1,500 observations. Future research may expand the research model by including other developing countries in order to be able to show more general conclusions.

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