Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422

409

Factors Affecting Enterprises that Apply the International Financial Report Standards (IFRS): A Case Study in Vietnam*

Thi Le Hang NGUYEN[1], Tran Hanh Phuong LE[2], Nhat Minh DAO[3], Ngoc Toan PHAM[4]

Abstract

In the global trend toward economic integration, Vietnamese enterprises desire to attract investment and increase competitiveness in the global market, so they have been required to provide transparent, high-quality financial reports following the International Financial Reports Standards (IFRS). Based on the roadmap drawn by the Vietnam Ministry of Finance, the foreign-invested enterprises, listed enterprises and state-owned enterprises will be applying IFRS in 2030. However, some enterprises in Vietnam have applied IFRS in the presentation of financial statements at the request of related parties for a while. The main research objective of this paper focused on examining the factors affecting the implementation of IFRS in Vietnamese enterprises through descriptive statistics tools, Cronbach's Alpha testing, EFA and logistics regression analysis with the sample collected from 254 Vietnamese enterprises. The methodology in this research was the mixed qualitative and quantitative method. The results show that the higher the profitability, debt ratio and firm size of the enterprise, the more likely it is to apply IFRS. From the results of this study, the appropriate recommendations have been made to promote the implementation of IFRS by Vietnamese enterprises effectively and following the IFRS application roadmap of the Ministry of Finance of Vietnam.

Keywords: IFRS, IFRS Application, Enterprises, Vietnam

JEL Classification Code: M40, M42, M48, N20

1. Introduction

In the trend toward integration, research results recently have recognized the change in the national accounting system toward adoption of the international accounting standards

[1]First Author and Corresponding Author. Lecturer, Faculty of Economics and Accounting, Quy Nhon University, Binh Dinh, Vietnam [Postal Address: 170 An Duong Vuong, Quy Nhon City, Binh Dinh Province, 55000, Vietnam] Email: ntlhang@qnu.edu.vn
[2]Lecturer, Faculty of Economics and Accounting, Quy Nhon University, Binh Dinh, Vietnam.
 Email: letranhanhphuong@qnu.edu.vn
[3]Lecturer, Faculty of Economics and Accounting, Quy Nhon University, Binh Dinh, Vietnam. Email: daonhatminh@qnu.edu.vn
[4]Lecturer, School of Accounting, University of Economics Ho Chi Minh City, Vietnam. Email: toanpn@ueh.edu.vn

(DeFond et al., 2011; Judge et al., 2010). In Vietnam, the accounting system is still governed by the Accounting Law, the Vietnamese Accounting Standards that were issued by the Ministry of Finance (Tran, 2015). However, since 2006, the Ministry of Finance has changed, updated and promulgated the new standards and regulations related to accounting work to show the positive policy of Vietnam in perfecting the accounting regime of enterprises, and work toward harmony and convergence with the international accounting. Moreover, if Vietnam wants to open up its market and attracts foreign investment, it is imperative to apply IFRS to prepare and present information on the financial statements of enterprises (Tran, 2014). From the reality of the economy, the Ministry of Finance issued a roadmap to apply IFRS in Vietnam, which has been starting for the period from 2022 to 2025 for foreign-invested enterprises, listed enterprises, and state-owned enterprises (the state taking control over 51%), and encourage all enterprises to apply after 2025 (Ministry of Finance, 2019). This process will promote the preparation and presentation of the financial statements of enterprises in Vietnam in order to converge and match those of businesses around the world. However, except for foreign-invested

410

Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422

enterprises that fully agree with this roadmap of the Ministry of Finance, most of the remaining enterprises are discussing and, embarrassingly, are not ready to adhere to this transition schedule.

In this research, both qualitative and quantitative research methods are employed. The qualitative research method was used through literature review and expert interviews in order to identify factors that affect the IFRS application in Vietnam. The quantitative research method examined 300 enterprises under the IFRS application roadmap for period from 2022 to 2025 issued by the Vietnam Ministry of Finance.

Samples of enterprises include foreign-invested enterprises, listed enterprises, and state-owned enterprises. The survey results yielded 291 valid responses, reaching a response rate of 97%. Based on the valid questionnaires collected, the authors consider how complete and representative the research sample was according to the following criteria: (1) the collected questionnaires must come enterprises with foreign investment, listed enterprises and state-owned enterprises (which taking control over 51%); (2) the questionnaires must include enterprises in the agriculture, forestry, fishery, industry and construction, and trade and service sectors as per Vietnam's business classification. The test results show that the survey is representative and reliable enough to be tested and analyzed.

The process of conducting tests and analysis of the study is to determine the impacting factors and the degree of influence on the IFRS application by Vietnamese enterprises in the following aspects: financial leverage, firm size, profitability, foreign investment, foreign borrowing, foreign participation in management, and auditing quality.

This first section of research is introduction. We present in detail the overview of relevant research in IFRS applycation and background theories in the second section. The research method including model of research and interpretation of variables of the model, research hypotheses, are prsented in the third section. The research results are presented in the fourth section. In the fifth section, we discussed the results, and the last part is the conclusions and limitations of this research.

2. Literature Review and Background Theories

2.1. Literature Review

Even though it is necessary to conduct the research on the IFRS application in preparing and presenting financial statements of enterprises, there have been very few studies about this topic in Vietnam. Some studies only focused on enterprises size, auditors' opinion, debt ratio, etc., but do not pay attention to the elements of foreign investment, requirement and participation of stakeholders in the process of preparing and presenting financial statements. Some typical studies about applying IFRS by enterprises, such as Leuz and Verrechia (2000) consider the accounting policies of Germany listed businesses on the DAX index for 1998. The result from logistic regression showed that firm size, financial demand, and financial operations significantly influenced enterprises' decision to apply IFRS.

Affes and Callimaci (2007) researched the motivation that led to early IFRS application by 106 firms in Germany and Austria. The results of the logistic model showed a positive relationship between the early IFRS application and the size of the enterprise. The study also showed a relationship between debt ratio and IFRS application roadmap in preparing financial statements for businesses from creditors. In this view, Dumontier and Raffournier (1998) also demonstrated a link between voluntary IFRS application and debt ratio and stakeholder requirements.

Mohamed and Fatma (2013) used a panel of 74 developing countries and 700 companies in order to identify the environmental factors that encourage the adoption of international accounting standards by developing countries. Specifically, larger firms adopting IFRS tend to have an Anglo-Saxon culture, higher economic growth, better educational system, common-law system, and are audited by Big Four auditors. However, leverage ratio, political system, financial market, and international listing status seem to have no effect on the decision to adopt IFRS by developing countries.

Odia (2016) conducted an experimental research at 50 large listed companies in Nigeria from 2011 to 2013 to analyze the factors affecting financial statements before and after applying IFRS. The study used logistic regression analysis and OLS (ordinary least square) based on enterprise characteristics (enterprises size, business cash flow, leverage, revenue, profitability, and profitability) with corporate governance variables (board size, degree of independence of management board, and audit quality). The results showed that only profitability affected IFRS application in Nigeria. The remaining factors had no impact on the decision of IFRS application in this country.

Parvathy (2017), studying the opportunities and challenges in converting financial statements of Indian companies under IFRS, has shown that there were many barriers to conversion such as training, awareness of enterprise management board, accounting system, accounting information system, and current financial reporting system.

Vinícius et al. (2018) noted that the economic effects of the convergence of accounting in the developing economy indicate that encouragement on the business level is an important driving force of compliance with IFRS. Results showed that (i) larger size, (ii) being more involved in foreign markets, and (iii) larger financial needs, are more likely to apply IFRS by making significant changes in their

accounting policies. The economic efficiency analysis shows that the cost of capital does not seem concerned. The lower transaction costs and greater liquidity, the less affected by individual investors are stocks.

Nguyen (2018) researched the factors affecting the conversion to IFRS from VAS of companies listed on the stock market in Vietnam. The results showed that two variables (support of administrators and professional qualifications of accountants) are affecting the same way to the conversion to IFRS from VAS.

In summary, there is a dearth of research on factors affecting the application of IFRS conducted in each specific country. The factors usually considered include the size of business, audit quality, profitability, etc. This is the basis for undertaking this study by the authors about Vietnamese enterprises.

2.2. Background Theories

The background theories used to study the factors that influence the use of IFRS by the businesses include Agency Theory and Corporate Governance Theory.

2.2.1. Agency Theory

In economics, the principal-agent problem treats the difficulties that arise under conditions of incomplete and asymmetric information when a principal hires an agent. Various mechanisms may be used to try to align the interests of the agent with those of the principal, such as piece rates/ commissions, profit sharing, efficiency wages, the agent posting a bond, or fear of firing. The principal-agent problem is found in most of employer/employee relationships, for example, when stockholders hire top executives of corporations.

Agency theory is directed at the ubiquitous agency relationship, in which one party (the principal) delegates work to another (the agent), who performs that work. Agency theory is concerned with resolving two problems that can occur in agency relationships. The first is the agency problem that arises when (a) the desires or goals of the principal and agent conflict and (b) it is difficult or expensive for the principal to verify what the agent is actually doing. The problem here is that the principal cannot verify that the agent has behaved appropriately. The second is the problem of risk sharing that arises when the principal and agent have different attitudes towards risk. The problem here is that the principal and the agent may prefer different actions because of the different risk preferences.

This theory explains the impact of leverage factor on the approval of IFRS of business. When the shareholders pursue excessive dividend policy, this will impact on the equity guarantee to creditors the approval of IFRS will reinforce the confidence of creditors and increase external funding for companies, especially banks. When the company borrows from foreign enterprises, the compulsory requirements from financial institutions, foreign banks that the company must provide the clear, comparable and transparent financial statement. Current preferences as businesses must establish financial statements under IFRS. Thus, based on the Agency theory, the foreign borrowing factor has an impact on applying IFRS in business.

Agency theory also explains the participation of foreigners in leadership, owned by foreign investors and profitability factors. When the leadership or shareholders of business are foreigners, the transparency will increase. Therefore, it is needed to apply the standards of financial reporting as IFRS, which is perfection. For profitability factor, the approval of IFRS is to promote the interests of the managers because they have more power in choosing accounting options. To avoid opportunistic behavior against the interests of shareholders, the managers will have a rate of compensation based on the enterprise's financial operations. Therefore, they are more likely to choose IFRS standards as a positive impact on the book value, especially equity and profits. If a portion of the compensation including stock options, they tend to use the option to increase the book value of equity. Therefore, to achieve the desired business results for owners, the managers have the ability to choose to apply IFRS to maximize benefits.

From these analytical observations, we used the Agency theory to create the link between the impact factors to apply IFRS in companies, including profitability, leverage, foreign borrowing, owned by foreign investors, and the participation of foreigners in leadership.

2.2.2. Corporate Governance Theory

According to Mathiesen (2002), Corporate governance (CG) theory shows how to administer companies effectively by using contract, organizational structure, and regulations and rules. CG is often limited in scope to improve financial performance, for example, how the owner motivates the manager to bring more effective investment rate. Charreaux (1997) defines Corporate governance as a collection of institutional mechanisms assigning powers and influence management decisions (dominant behavior and minimize the business misrepresentation of accounting).

The IFRS improved the quality of published information by increasing transparency. In fact, most of the economic and financial information is reflected by the introduction of the concept of fair value. To achieve transparency, the IASB decided to reduce the choice of accounting, use only one method to record the process in groups and require the disclosure of information that was previously only available to executives.

412

*Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422*

Financial information is disclosed under IFRS in more detail because of the special requirements of the detailed data and stakeholders. For example, IFRS 8 (replaces IAS 14) requires companies to disclose sensitive information about the profitability of the operation (product or geographic area). IFRS 7 also requires information about the business risks (credit risk, liquidity risk, and market risk); how to manage risk, and investment strategies. This information is relevant to investors, facilitating evaluation enterprise risk management and how the level of risk assumed by investors.

In summary, Corporate Governance theory explains the impact of factors to apply IFRS, including firm size, the participation of foreigners in the leadership, etc, to help enterprises administrators improve the quality of the financial report and reduce the amount of asymmetric information.

3. Research Methodology

3.1. Research Process

In order to achieve the research objective, we used mixed methodology in this paper.

This research implements qualitative method: through previous research, the authors summarize factors affecting the application of IFRS in Vietnam. Then, through interviewing techniques and direct conversation, the authors interviewed nine experts, including managers, chief accountants, auditors, consultants, and lectureres with at least five years of experience in financial, auditing, and accounting field. This process helps the authors directly to come up with ideas, get consultancy and discover new factors via the preliminary questionnaire. From the results and opinions from group's discussion, the authors identify factors affecting IFRS application in Vietnam, which include: enterprise size, audit quality, leverage, level of indebtedness, foreign operation, ROE (Return on Equity), ROA (Return on Assets), auditor's capacity, financial structure, and shareholder's equity structure.

3.2. The Research Model

Based on the theoretical background (Agency theory and Corporate Governance theory) and previous studies on the impacting factors when applying IFRS in the range of enterprises (Murphy, 1999; Zeghal & Mhedhbi, 2006; Iwona, 2012; Phuong & Nguyen, 2012; Akinyemi, 2012; Phan et al., 2014; Ajit et al., 2015). These factors were the size of enterprises, leverage, audit quality, the investment of foreign, etc. Most of the factors affecting the approval of IFRS within enterprises was explained discrete, the results also heterogeneous.
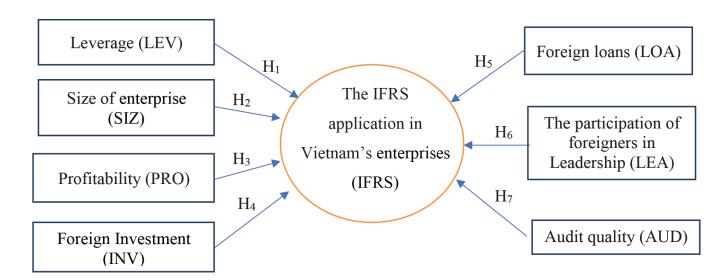
Our research model is presented in Figure 1.

Figure 1. Research model about the factors impact on the approval of IFRS in Vietnam's enterprises

Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422

413

Sampling method

In this research, sample is chosen according to the convenient sampling method by selecting non-probability samples. Sample size is often determined based on: (1) minimum size and (2) number of analyzed variables.

According to Hair et al. (2010) and Nguyen (2014), the sample size is determined based on (1) minimum sample size (min = 50) and (2) number of variables taken into analysis of the model according to the formula:

$$n = \sum_{j=1}^{m} kP_j$$

n: Sample size

m: Number of scales

k: The ratio of the sample to an analytical variable (5/1 or 10/1)

Pj: Number of observed variables of the j-th scale

The research model of this paper has seven variables, the sample rate is chosen by an analytical variable of 5/1, it applies the above formula by Hair et al. (2010); we have the minimum sample size of 100 enterprises. The sample was collected from 254 Vietnamese enterprises. So, the sample is satisfying.

From the above research model, the authors determine logit regression as follows:

LOGIT [IFRS$_i$] = β0 + β1 * LEV$_i$ + β2 * SIZ$_i$ + β3 * PRO$_i$+ β4 * INV$_i$ + β5 * LOA$_i$ + β6 * LEA$_i$ + β7 * AUD$_i$ + ε$_i$

Dependent variable: a dummy variable, receive a value of 1 if the enterprise has applied IFRS and receive a value of 0 if the enterprise did not apply IFRS until the end of 2019.

Independent variable: Leverage (LEV), Size of enterprise (SIZ), Profitability (PRO), Investment by foreign investors (INV), Foreign loans (LOA), The participation of foreigners in leadership (LEA), Audit quality (AUD).

Parameters: β0, β1, β0,….., βn;

Error: ε

Data is collected from audited financial statements, annual reports of enterprises on website, Internet, Stock Exchange, auditing companies, banks and organizations finance, etc. The authors surveyed chief accountants, directors to collect the basis of whether enterprise apply IFRS or not.

3.3. Research Hypotheses

The authors try to develop the relationship among several determined factors such as leverage, the size of enterprise, debt on shareholders' equity ratio, the size of enterprise, return on equity, audit quality, etc., with IFRS application in enterprises of Vietnam.

Leverage

Meek et al. (1995) argued that voluntary information disclosured increases with the financial leverage. Many debt-seeking enterprises want to reduce borrowing costs by disclosing more useful information to creditors. These enterprises are trying to establish good relationships with creditors by ensuring the quality of published information. Mohamed and Fatma (2013) used long-term debt divided by total assets to determine the level of corporate debt. This consensus has research of Dinh and Pham (2020).

***H1:** The higher the leverage is, the easier enterprise is to apply IFRS*

The size of enterprise

The size of a company plays a significant role in the development and implementation of its strategy. In fact, we can distinguish four groups: very small enterprises, small- and medium-sized enterprises, large companies, and super-large companies. Classification of these firms depends on several criteria such as total number of employees, annual turnover, total assets, etc. Besides, Affes and Callimaci (2007), Ha and Kang (2019) highlighted the *incentives* for *early* adoption of *IAS/IFRS* by *German and Austrian listed groups.* Using the logistic model and a sample of 106 German and Austrian companies, the results show that the probability of early adoption of IAS/IFRS increases with the size of the company. Larger companies depend more on external funds and seek to differentiate themselves in the market by providing financial reporting quality. Marta et al. (2008), useda sample of 56 companies which are listed on the Portugal Stock Exchange, shows that smaller firms are less inclined to abandon their national accounting standards. By contrast, larger companies apply higher quality accounting policies even before the official adoption of IFRS.

***H2:** The larger the enterprise, the more likely it is to apply IFRS.*

Profitability

Empirical results relating to the relationship between profitability and IFRS adoption are mixed. For example, Dumontier and Raffournier (1998), Nguyen and Nguyen (2020) identified elements for listed companies who voluntarily apply IFRS. The research tests the connection between IFRS adoption and business characteristics (internationality, size, ownership structure, capital, reputation of the firm auditor and profitability). The results show that there is no relationship between IFRS adoption and business performance (Affes & Callimaci (2007)). By contrast, Marta et al. (2008) shows that companies with a high level of profitability adopt IFRS to show that their profits are reliable. The research used ROE to reflect the company's

Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422

414

performance which is an independent variable (Stainbank, 2014; Marta et al., 2008, Nguyen & Nguyen, 2020).

H3: *Enterprises with high profitability are more likely to apply IFRS.*

Foreign Investment

Akinyemi (2012) identifies the rise of cross-border capital flows and foreign direct investment through mergers and acquisitions in the era of globalization, which raises the need for different harmonization in national accounting all over the world by applying IFRS. Francesco and Raynolde (2012) has pointed out that foreign investors highly appreciate IFRS-based enterprises for reducing information asymmetries compared to GAAP. Bae et al. (2008) also agreed when foreign investors requested financial statements to comply with IFRS.

H4: *The enterprise that has received investment from abroad is more likely to apply IFRS.*

Foreign loans

Daske et al. (2008) argued that the IFRS application receives support from lenders because they can control the risk of lending more proactively as financial information is globally consistent. However, the enterprises that want to receive this loan are almost obliged to convert financial statements from their national accounting standards to IFRS. Therefore, this is the factor that motivates businesses to implement IFRS quickly (Le, 2019). The authors only mention borrowing from foreign countries at financial institutions and foreign banks.

H5: *The enterprises with foreign loans are more likely to apply IFRS.*

The participation of foreigners in leadership

The participation of foreign managers in domestic enterprises is now considered a good way to improve the profitability of the industry (Ray et al., 2015). Especially the financial sector and banks now allow many foreign banks to join local banks and send representatives to the partner bank headquarters. This partnership not only enhances the foreign investment, but also encourages the knowledge transfer (Le, 2019).

H6: *The enterprises with participation of foreigners in leadership are more likely to apply IFRS.*

Audit quality

Al-Basteki (1995) examines the characteristics of 26 companies listed on Bahrain and who choose to disclose information according to IAS. These characteristics comprise of the reputation of the external auditor, industry sector,

company size, level of foreign operations and the degree of dependence on external financing. The results indicate that the decision of adopting IFRS is strongly influenced by the type of external auditor (Big 4). Similarly, Joshi and Ramadhan (2002), Ha and Kang (2019) tested the accounting practices and the degree of IFRS adoption in Bahrain. There are 36 companies in the research sample. The results show that 86% of the companies applying IFRS are audited by a Big Four company.

H7: *Enterprises that are audited by Big 4 are more likely to apply IFRS.*

From the model and the research hypotheses, we conduct the measurement of the research variables, then encode the survey data for analysis on SPSS 22.0 as follows:

4. Research Results

4.1. Scale Reliability and Data

The authors analyzed Cronbach's Alpha for the factors and assumptions of the model study, the analysis results are as follows:

The scale of LEV, SIZ and PRO

The scale of LEV: In the step 1, Cronbach's Alpha of this LEV's scale was 0.882 and the corrected item-total correlation of LEV1, LEV2, LEV3, LEV4 were greater than 0.3. The LEV5 had also the corrected item-total correlation, which was greater than 0.3, but Cronbach's Alpha if Item Deleted was greater than 0.882, so LEV5 was eliminated. After eliminating LEV5, the Cronbach's Alpha was 0.929, the remaining 4 variables in this scale achieved reliability in step 2.

The scale of SIZ has been measured through 3 observed variables. The Cronbach's Alpha of this scale was 0.897. All variables achieved the reliability in this scale. The scale of PRO has been measured through 2 observed variables. The Cronbach's Alpha of this scale was 0.897. All variables achieved the reliability in this scale.

4.2. EFA Analysis

To perform exploratory factor analysis, the independent variables must be correlated with each other. Therefore, the authors conduct the correlation and variance test as follows

Results of testing the correlation between the independent factors

In this study, the number of variables in three independent factor's scales consists of nine observed variables, with the sample size over 100, so the authors choose the factor loading 0.55 (Nguyen, 2014).

Table 1: Scale of variables in the model

Variables	Scale		Encode
	Content		**Encode**
The IFRS application in Vietnam's enterprises (IFRS)	Value of 1 if the enterprise has applied IFRS Value of 0 if the enterprise does not apply IFRS until the end of 2019.		IFRS
Leverage (LEV)	The ratio of total debt to equity		LEV1
	Financial leverage		LEV2
	Total liabilities		LEV3
	The ratio of total debt to total assets		LEV4
	The ratio of Long-term debt to total capital		LEV5
Enterprise size (SIZ)	Book value of total assets		SIZ1
	Total revenue		SIZ2
	Number of employees		SIZ3
Profitability (PRO)	Return on Assets (ROA)		PRO1
	Return On Equity(ROE)		PRO2
Foreign Investment (INV)	Value 1 if Vietnam's enterprise has foreign investment. Value 0 if Vietnam's enterprise does not have foreign investment.		INV
The participation of foreigners in leadership (LEA)	The value 1 if Vietnam's enterprise has the participation of foreigners in leadership. The value 0 if Vietnam's enterprise does not have the participation of foreigners in leadership.		LEA
Audit quality (AUD)	The value 1 if Vietnam's enterprise audited by Big4. The value 0 if Vietnam's enterprise does not audit by the Big4.		AUD
Foreign loans (LOA)	The value 1 if Vietnam's enterprise has foreign loans. The value 0 if Vietnam's enterprise does not have foreign loans.		LOA

Table 2: The Cronbach's Alpha results

Variables			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha results
LEV	Step 1	LEV1	13.34	18.631	0.922	0.837	0.929
		LEV2	13.30	13.283	0.858	0.828	
		LEV3	13.46	19.120	0.817	0.852	
		LEV4	13.45	15.119	0.851	0.823	
		LEV5	13.65	19.361	0.413	0.929	
	Step 2	LEV1	10.19	13.166	0.909	0.911	
		LEV2	10.15	8.351	0.904	0.912	
		LEV3	10.31	13.428	0.830	0.926	
		LEV4	10.30	9.646	0.932	0.874	
SIZE SIZ2 SIZ3		SIZ1	6.02	6.262	0.819	0.838	0.897
			5.63	6.033	0.788	0.861	
			5.97	5.848	0.789	0.862	
PRO PRO2		PRO1	3.38	3.349	0.924		0.897
			3.24	1.194	0.924		

416

Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422

Table 3: Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	Total	Total	Total	% of Variance	Cumulative %	Total
1	4.834	48.340	48.340	4.678	46.777	46.777	4.274
2	2.451	24.511	72.851	2.207	22.068	68.845	2.384
3	1.130	11.304	84.156	0.998	9.977	78.822	3.370

Test results of KMO and Bartlett showed that the coefficient of KMO = 0.761 > 0.5 and sig = 0.000 < 5%. Therefore, EFA analysis results are statistically significant.

Results of variance analysis:

Table 3 indicates that cumulative percentage of total variance explained is 78.822%. This result satisfied the standard that the extract variance has to be greater than 50% (Hair et al., 2010). This means 78.822% change of factors is explained by variables. Furthermore, according to Gerbing and Anderson (1988), the factors with Eigenvalue <1 will not summarise information better than the original variable (latent variable in scales before EFA analysis). Therefore, the factors are extracted only at Eigenvalue > 1 and accepted when the total variance Explained ≥ 50%. The result has three factors which meet these standards.

From the results of the EFA analysis, the observed variables were gathered according to the factors proposed by the research through the literature review.

4.3. Chi-Square Test

With value of α = 0.05, Chi-square testing will be conducted to examine the relationship between the dependent variable of the ability to apply the IFRS and the independent variables including: INV, LOA, LEA and AUD.

From the above table, only the value of Sig between IFRS and INV is 0.000 < 0.05, so there is a relationship between IFRS and INV. The remaining sig value between IFRS and AUD is 0.225, between IFRS and LEA is 0.138, between IFRS and LOA is 0.173 that are all greater than 0.05. There are no relationship between the IFRS dependent variable and independent variables AUD, LEA and LOA. These three variables will be excluded from the research model.

In summary, from the original research model, through Chi-Square test, the authors will remove three qualitative variables: LOA, LEA, AUD because there is no relationship with the ability to apply IFRS in Vietnamese enterprises. Thus, the adjusted logistic regression model after testing Chi-square is:

$$\text{LOGIT } [\text{IFRS}_i = 1] = \beta 0 + \beta 1 * \text{LEV}_i + \beta 2 * \text{SIZ}_i + \beta 3 * \text{PRO}_i + \beta 4 * \text{INV}_i + \varepsilon_i$$

4.4. Logistic Regression Analysis

From the logistic regression after adjustment of Chi-square test:

$$\text{LOGIT } [\text{IFRS}_i = 1] = \beta 0 + \beta 1 * \text{LEV}_i + \beta 2 * \text{SIZ}_i + \beta 3 * \text{PRO}_i + \beta 4 * \text{INV}_i + \varepsilon_i$$

Inside:

Dependent variable: a dummy variable, receive a value of 1 if the enterprise has applied IFRS and receive a value of 0 if the enterprise did not apply IFRS until the end of 2019.

Independent variable: leverage (LEV), the size of enterprise (SIZ), profitability (PRO), Investment by foreign investors (INV).

Parameters: $\beta 0$, $\beta 1$, $\beta 0$,….., βn;

Error: ε

According to Agresti (2007), logistic regression should perform the following three tests:

(1) Testing the significance of regression coefficients:

The authors used the Wald test in order to consider whether the independent correlation variables are meaningful with the dependent variable. When the significance level of sig of regression coefficient <= 0.1 or reliability of 90% or more, the variables are linearly correlated.

From Table 5, INV has sig = 0.155 > 0.1. Therefore, INV has no statistical significance with IFRS variable with 90% confidence.

The variable LEV, SIZ, PRO have the value of sig < 0.1. Therefore, these variables are statistically correlated with IFRS variables with confidence> = 90%.

(2) The explanation of the model:

We used the R^2 Nagelkerke to measure the explanation of the model. R^2 Nagelkerke indicates the % change of the dependent variable explained by the model's independent variable. This measure goes as far as 100%, which shows that the model has a high level of explanation. Nagelkerke of the model is 0.868. So, 86.8% of IFRS changes are explained by independent variables.

Table 4: Chi-square results

Chi-square results		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Between IFRS and AUD	Pearson Chi-Square	1.473[a]	1	0.225		
	Continuity Correction[b]	0.988	1	0.320		
	Likelihood Ratio	1.456	1	0.227		
	Fisher's Exact Test				0.273	0.160
	Linear-by-Linear Association	1.459	1	0.227		
	N of Valid Cases	*100*				
Between IFRS and INV	Pearson Chi-Square	58.014[a]	1	0.000		
	Continuity Correction[b]	54.731	1	0.000		
	Likelihood Ratio	62.519	1	0.000		
	Fisher's Exact Test				0.000	0.000
	Linear-by-Linear Association	57.434	1	0.000		
	N of Valid Cases	*100*				
Between IFRS and LEA	Pearson Chi-Square	2.197[a]	1	0.138		
	Continuity Correction[b]	1.496	1	0.221		
	Likelihood Ratio	2.123	1	0.145		
	Fisher's Exact Test				0.194	0.112
	Linear-by-Linear Association	2.175	1	0.140		
	N of Valid Cases	*100*				
Between IFRS and LOA	Pearson Chi-Square	1.857[a]	1	0.173		
	Continuity Correction[b]	1.121	1	0.290		
	Likelihood Ratio	1.776	1	0.183		
	Fisher's Exact Test				0.225	0.145
	Linear-by-Linear Association	1.839	1	0.175		
	N of Valid Cases	*100*				

418

Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422

Table 5: Regression coefficient

		B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	INV	-2.585	1.816	2.027	1	0.155	0.075	0.002	2.648
	LEV	1.906	0.945	4.067	1	0.044	6.725	1.055	42.857
	SIZ	1.105	0.565	3.821	1	0.051	3.018	0.997	9.135
	PRO	2.674	0.745	12.879	1	0.000	14.504	3.366	62.490
	Constant	2.520	0.957	6.931	1	0.008	12.428		

Table 6: Omnibus test about model coefficients

		Chi-square	df	Sig.
Step 1	Step	98.660	4	0.000
	Block	98.660	4	0.000
	Model	98.660	4	0.000

(3) The relevance of the model:

Table 6 showed model sig = 0,000 <= 0.05. Thus, in general, the independent variables are linearly correlated with the dependent variable, so this model is consistent with the actual data. From the results of 3 tests, the model confirmed the variables LEV, SIZ, PRO correlated statistically with IFRS variable with reliability> = 90%. The impact level of independent variables on the dependent variable IFRS is arranged in descending order: PRO (2.674), LEV (1.906) and finally SIZ (1.105).

The logistic regression functions are rewritten as follows:

LOGIT [IFRS =1] = 2.52 + 1.906 * LEV + 1.105 * SIZ + 2.674 * PRO

5. Discussion

The PRO, LEV and SIZ variables statistically impact the decision to apply IFRS in Vietnamese enterprises. This means that the Vietnamese enterprises that have high profitability, high financial leverage, and larger business size are more likely to apply IFRS than others. The INV, LOA, AUD and the LEA variables do not affect the IFRS application of enterprises in Vietnam. It proved that the Vietnamese enterprises in the survey do not apply IFRS based on foreign investment, foreign borrowing, auditing by Big 4 or participation of foreigners in management.

The LOA variable has no impact on IFRS application because the number of enterprises we have surveyed having foreign borrowing is quite low. The reason is that the procedures required at the foreign financial institutions are strict, the legal process is clear, and the management fee is higher than that of Vietnamese banks. Vietnamese enterprises often take loans from foreign financial institutions when transactions arise with foreign partners to ensure financial security. However, the Vietnamese enterprises that have transactions with foreign partners are limited at the moment, so the foreign borrowing is still low and the value is small. The foreign partners also did not place a requirement on enterprises to apply IFRS, so this problem has not affected Vietnamese enterprises.

The AUD variable has no impact on IFRS application because most Vietnamese enterprises are afraid that the cost of auditing by Big4 is much higher than that of Vietnamese auditing firms. On the other hand, Vietnamese enterprises are not yet fully aware of the positive role of auditing activities in the process of applying financial statements to IFRS in down the line. The objective of auditing financial statements of Vietnamese companies is mainly to comply with the provisions of the law, make bank loans easier, meet the requirements of partners, etc. Therefore, Vietnamese companies choose auditing mainly based on audit cost criteria.

The INV variable has no impact on IFRS application in Vietnamese enterprises because the number of Vietnamese enterprises receiving foreign investment is not high in reality. The reason is that the administrative mechanism and legal procedures to attract foreign investors to Vietnam have not been flexible, many local governments still have bureaucracy and state management are still loose. Vietnam has no policies or supporting tools to protect investors. Some countries have flexible forms for foreign investors, such as convertible bonds, convertible loans, etc., when appropriate, they can carry out the conversion. Currently, Vietnam has no regulations on issuing bonds or convertible loans like that. Investors need a mechanism to reduce risks by the legal regulations to invest.

The LEA variable does not affect the application of IFRS in Vietnamese businesses because the administrative management regulations for foreign staff working in Vietnam are not clear. The regulations about housing, property, and income tax policy for foreign workers are not fully. Therefore, the number of foreign managers in companies in Vietnam is still very limited. This is one of the barriers that make Vietnam enterprises slow to innovate management thinking in the increasingly competitive market mechanism of the 4.0 era.

The PRO variable has the greatest and positive impact on applying IFRS by enterprises in Vietnam. Our result is similar to studies by Iatridis (2010), Kim et al. (2011), Affes and Callimaci (2007), Marta et al. (2008). This confirms that enterprises with high profitability on equity will have more motivation to apply IFRS because the profitability index is closely related to the operating capacity and solvency of enterprises. The investors will rely on the good and stable growth of enterprise's profitability over the years in order to make investment decisions. Therefore, if the high-profit enterprises want to attract foreign capital, they need to apply of IFRS because it has the positive sign of the credibility and comparability of published financial information.

The LEV variable affects positively the IFRS adoption by enterprises in Vietnam. Meek et al. (1995), Affes and Callimaci (2007) have reached similar research results. Those researchers suggest that enterprises with high financial leverage will provide more useful information for creditors, so they will try to establish good relationships with creditors by disclosing quality assurance information. Therefore, the enterprises with a higher LEV are more likely to apply IFRS than the others.

The SIZ variable has an impact on the adoption of IFRS in the large enterprises. This result is similar to the studies by Mohamed and Fatrma (2013), Leuz and Verrachia (2000), Affes and Callimaci (2007), Marta et al. (2008). These researchers have also pointed out that the bigger the enterprise, the more likely it is to apply IFRS. In fact, in Vietnam, large-scale enterprises are often corporations, joint-stock enterprises transformed from state-owned enterprises or enterprises, which state owns a part. Under the globalization trend, these enterprises were first affected, so they focused on the adoption IFRS.

6. Conclusion

The integration of global markets requires investors to compare financial information of companies in different countries in order to make the right investment decision. The financial statements are the main documents providing useful information to investors. Moreover, the adoption of international accounting standards, which is popular in the world, makes it easier for analysts, managers, and investors to compare investment indicators. The main objective of this study is to assess the impact of corporate environmental factors on IFRS adoption decision in Vietnam. The empirical research results show that Profitability, Leverage, and Enterprise size affect the enterprise's adoption of IFRS in Vietnam. This is a useful source of information on enterprise characteristics, which helps the Ministry of Finance and the Association of Professional Associations provide the appropriate supporting policies when implementing the IFRS roadmap in the future. The paper also helps researchers to gain a more in-depth understanding of the enterprise characteristics that will impact the IFRS adoption process.

We recognize that our research still has some limitations such as the lack of data of estimation model and some independent variables, and research on the relationship between IFRS adoption and corporate environmental factors that require complex data is often difficult to obtain as governance variables in Vietnamese enterprises are often lacking in transparency. At the same time, the number of enterprises selected as the sample is still limited compared to the total number of enterprises that are on the IFRS adoption roadmap in phase 1 in Vietnam. Moreover, the reliability of the information highly depends on the data submitted by the enterprises, which is usually shown on the annual financial statements.

References

Affes, H., & Callimaci, A. (2007). Les déterminants de l'adoption anticipée des normes comptables internationales: choix financier ou opportunisme, *Comptabilité contrôle audit, 2*, 149-166.

Agresti Alan (2007). *An Introduction to Categorical Data Analysis* (2nd ed.). Hoboken, NJ: John Wiley & Sons, Inc. DOI:10.1002/0470114754.

Ajit, D., Han, D., Mike, I., & Gökhan, K. (2015). IFRS and accounting quality: legal origin, regional, and disclosure impacts. *International Journal of Accounting & Information Management*, 24 (3), 296-316.

Akinyemi, O. A. (2012). The impact of International Financial Reporting Standards adoption on financial statement - The case of Nigeria. *Bachelor of Business Administration,* VAASA University Of Applied Sciences.

Al-Basteki H. (1995). The voluntary adoption of international accounting standards by Bahraini corporations. *Advances in International Accounting, 8*, 47-64.

Bae, K.-H., Tan, H. & Welker, M. (2008). International GAAP differences: the impact on foreign analysts. *Accounting Review*, *83*(3), 593-628.

Charreaux, G. (1997). Le gouvernement des entreprises: Corporate Governance, Theories et Faits. *Economica,* 15-56.

Daske, H, Hail, L, Leuz, C & Verdi, R. (2008). Reporting on Mandatory IFRS around the World: Early Evidence on the

420

Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422

Economic Consequences. *Journal of Accounting*, *46*(5), 1085-1142.

DeFond, M. L., Hu, X., Hung, M., & Li, S. (2011). The impact of mandatory IFRS adoption on foreign mutual fund ownership: The role of comparability. *Journal of Accounting and Economics*, *51*, 240-258.

Dumontier, P., & Raffournier, B. (1998). Why firms comply voluntarily with IAS : an empirical analysis with Swiss data*. Journal of International Financial Management and Accounting, 9*(3), 216-245.

Dinh, T. H., & Pham, C. D. (2020). The Effect of Capital Structure on Financial Performance of Vietnamese Listing Pharmaceutical Enterprises. *Journal of Asian Finance, Economics and Business*, *7*(9), 329-340. doi:10.13106/jafeb.2020.vol7.no9.329

Francesco, B. & Raynolde, P. (2012). The Determinants and Consequences of Heterogeneous IFRS Compliance Levels Following Mandatory IFRS Adoption: Evidence from a Developing Country. *Journal of Intrernational Accounting Research, Forthcoming,* Available at: <https://ssrn.com/abstract=1542240 or http://dx.doi.org/10.2139/ssrn.1542240.>

Gerbing, D. W & Anderson, J. C., (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin, 103*(3), 411-423. https://doi.org/10.1037/0033-2909.103.3.411

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Pearson-Prentice Hall.

Ha, M., & Kang. M. (2019). IFRS Reconciliation Adjustment and Subsequent Meet or Beat Target Earnings. *Journal of Asian Finance, Economics and Business*, *6*(1), 33-45. doi:10.13106/jafeb.2019.vol6.no1.33

Iatridis G. (2010). International Financial Reporting Standards and the quality on financial statement information. *International Review of Financial Analysis*, *19*, 193-204.

Iwona, V. (2012). The adoption of IFRS in Poland: an institutional approach, PhD thesis, University of Greenwich. Available at: http://gala.gre.ac.uk/9457/1/Iwona_Vellam_2012.pdf.

Joshi, P. L., & Ramadhan, S. (2002). The adoption of international accounting standards by small and closely held companies: evidence from Bahrain. *The International Journal of Accounting*, *37*, 429-440.

Judge, W., Li, S & Pinsker, R. (2010). National Adoption of International Accounting Standards: An Institutional Perspective. *Corporate Governance: An International Review, 18*(3), 161-174.

Kim, J., Tsui, J. S. L., & Yi, C. H. (2011). The voluntary adoption of International Financial Reporting Standards and loan contracting around the world. *Review of Accounting Studies*, *16*(4), 779-811.

Le, T. H. P. (2019). *Factors affect the adoption of The International Accounting Standards (IAS/IFRS)– Research on countries and companies in Vietnam*. Phd Thesis in economics, University Of Economics Ho Chi Minh City, Vietnam

Leuz, C., & Verrecchia, R. (2000). The economic consequences of increased disclosure. *Journal of Accounting Research, 38*, 91-124.

Marta, S. G., Rodrigues, L., & Craig, R. (2008). The preparedness of companies to adopt International Financial Reporting Standards: Portuguese evidence. *Accounting Forum, 32*, 75-88.

Mathiesen, H. (2002). Managerial Ownership and Finance Performance. *Dissertation presented at Copenhagen Business School.*

Meek, G., Roberts, C., & Gray, S. (1995). Factors influencing voluntary annual report disclosures by US, UK, and continental European multinational corporations. *Journal of International Business Studies*, *26*, 555-572.

Ministry of Finance (2019). *Current situation, international experience and the roadmap to apply international accounting standards (IFRS) in Vietnam.* Ha Noi.

Mohamed, K. C., & Fatma, Z. (2013). The determinants of The International Accounting Standards adoption by emergent countries, Available at: *http://www.cbe.uaeu.ac.ae/en/csafc/pdf/ad_38.pdf*

Murphy, A. B. (1999). Firm characteristics of Swiss companies that utilize international accounting standards. *The International Journal of Accounting, 34*(1), 121-131.

Nguyen, D. T. (2014). *Methods of scientific research in business*. Hanoi: Labor - Social Publishing House.

Nguyen, N. H. (2018). *Conversion of financial statements from Vietnamese accounting standards to international financial reporting standards - Empirical research at Vietnamese enterprises*. PhD Thesis. University of Economics Ho Chi Minh city, Vietnam.

Nguyen, T. N. L., & Nguyen, V. C. (2020). The Determinants of Profitability in Listed Enterprises: A Study from Vietnamese Stock Exchange. *Journal of Asian Finance, Economics and Business, 7*(1), 47-58. doi:10.13106/jafeb.2020.vol7.no1.47

Nguyen, V. C., & Nguyen, T. N. L. (2020). Financial Security of Vietnamese Businesses and Its Influencing Factors. *Journal of Asian Finance, Economics and Business, 7*(2), 75-87. doi:10.13106/jafeb.2020.vol7.no2.75

Odia, J. O. (2016). The determinants and Financial Statement effects of IFRS adoption in Nigeria. *Economics and political implications of International Financial Reporting Standards,* 319-334.

Parvathy P. R. (2017). IFRS convergence: opportunities and challenges in India. *Accounting and Financial Control*, *1*(2), 13-18.

Phan, D. H. T., Mascitelli, B., & Barut, M. (2014). Perceptions towards IFRS- international financial reporting standards: The case in Vietnam. *Global Review of Accounting and Financial Journal, 5*, 132-152.

Phuong, N. C., & Nguyen, T. D. K. (2012). International harmonization and national particularities of accounting:

Thi Le Hang NGUYEN, Tran Hanh Phuong LE, Nhat Minh DAO, Ngoc Toan PHAM /
Journal of Asian Finance, Economics and Business Vol 7 No 12 (2020) 409–422

421

Recent accounting development in Vietnam. *Journal of Accounting and Organizational Change,* 8(3), 431-451.

Ray, B., Xi, L., & Lakshmanan, S. (2015). Contractibility and Transparency of Financial Statement Information Prepared Under IFRS: Evidence from Debt Contracts Around IFRS Adoption. *Journal of Accounting Research, 53*, 915-963.

Stainbank, L. J. (2014). Factors Influencing the Adoption of International Financial Reporting Standards by African Countries. *South African Journal of Accounting Reasearch, 28*(1), 79-95.

Tran, Q. T. (2014). *Orientation to develop Vietnamese financial reporting standards to meet the trend of applying international accounting.* PhD thesis in economics. University of Economics Ho Chi Minh city. Ho Chi Minh City.

Tran, T. T. H. (2015). Factors affecting the adoption of International Accounting Standards in Vietnam, *Proceedings of the conference "International Accounting Standards (IFRS) - Opportunities and challenges"*, 121-132.

Vinícius, S. L., Gerlando, A. F. S. L., Nelson, L. G. C., & Iran, S. L. (2018). Effects of the Adoption of IFRS on the Credit Market: Evidence from Brazil. *The International Journal of Accounting, 53*(2), 77-101.

Zeghal, D. & Mhedhbi, K. (2006). Analysis the factors affect the international accounting standards adoption by developing countries. *The International Journal of Accounting*, *41*(4), 73.