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## Determining Factors to Implementing IFRS for SMEs: A Study in International Accounting Standards Board Countries

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#### **Abstract**

This study aims to obtain empirical evidence regarding the effect of education level, the existence of other accounting standards, and the level of internationality on the application of International Financial Reporting Standards (IFRS) for Small and Medium Enterprises (SMEs) in countries registered with the International Accounting Standards Board (IASB). This study uses a quantitative approach with a research data population of 167 countries registered with the International IASB 2020. The sample data for this study were from 101 countries, which were selected based on the purposive sampling method. Hypothesis testing in this study uses Logistic Regression Analysis. The results of this study indicate that the level of education and the existence of other accounting standards have a negative effect on the implementation of IFRS for SMEs, while the level of internationality has no significant effect on the implementation of IFRS for SMEs. This study has limitations that lie in the lack of information regarding the timing of the adoption of IFRS for SMEs and the changing number of adopting countries.

**Keywords**: IFRS for SMEs, Neo-Institutional Theory, Institutional Isomorphism, Mimetic Isomorphism and Coercitive Pressure

## 1. INTRODUCTION

Business globalization drives IASB to increase the harmonization of reporting practices worldwide by issuing international accounting standards, such as IFRS, for SMEs. IFRS for SMEs is a global accounting standard published in 2009 and specifically intended for non-public entities worldwide (IASB, 2009). Before IFRS for SMEs was published, countries around the world had implemented their accounting standards (Generally Accepted Accounting Principles (GAAP) in every country (national) or full IFRS for non-public entities. The implementation of GAAP and full IFRS to non-public entities is likely to cause problems, such as differences in GAAP between countries, which can lead to possible misinterpretations (Cam et al., 2019), and the implementation of full IFRS which can burden or burden non-public entities because full IFRS is considered too complex to be applied to entities that only publish general purpose financial reports (Kılıç et al., 2016). These problems prompted the IASB to issue international accounting standards that are suitable and appropriate to increase the harmonization of financial reporting practices of non-public entities throughout the world, namely IFRS for SMEs (Bonito & Pais, 2018). The contribution of non-public entities can create jobs and technological innovation and increase gross domestic product (GDP) (Damak-Ayadi & Sassi, 2020).

IFRS for SMEs is a simplified form of full IFRS modified for non-public entities by considering the cost-benefit concept (IASB, 2009). This standard is an independent or stand-alone document that is logically structured into 35 sections based on topics, where the disclosures are reduced significantly to 300 from the 3000 disclosures in full IFRS (Perera & Chand, 2015). Five main modifications in IFRS for SMEs that make it simpler than full IFRS according to Pacter (2009) and Perera and Chand (2015), including 1) Eliminating several topics that are not relevant to non-public entities; 2) If full IFRS provides a choice of accounting treatments for certain

circumstances, IFRS for SMEs only determines one easier accounting treatment; 3) Simplification of the principles of recognition and measurement of assets, liabilities, income and expenses; 4) Remove some disclosures in full IFRS designed for the public capital market and simplify the presentation required in the financial statements of non-public entities; 5) The entire IFRS for SMEs standard was redesigned to use clear English and is easy to translate into other languages.

The implementation of IFRS for SMEs to non-public entities can improve disclosure requirements, transparency, comparability, quality of financial reports, market liquidity, international investment, and reduced cost of capital (Zahid & Simga-Mugan, 2018). However, its implementation has only been carried out in 86 countries out of 167 countries registered with the IASB (IFRS Foundation, 2019). The phenomenon of business globalization is growing rapidly, especially since the beginning of the spread of COVID-19 throughout the world in 2020, where international trade transactions are increasingly in demand by consumers through ecommerce (Damak-Ayadi & Sassi, 2020). This is possible because the implementation of IFRS for SMEs is a major decision that must be taken by the competent institution/body in setting accounting standards in a country after going through many economic and socio-political considerations (Chua & Taylor, 2008). Therefore, this research will use data from 2020 because apart from this data, the latest data has been published by the IASB, UNDP, and World Bank. 2020 is also the beginning of the development of international trade, which is increasingly easy to access via e-commerce as a result of the spread of Covid-19.

Based on the neo-institutional theory proposed by Di Maggio & Powell (1983), the implementation of international accounting standards, including IFRS for SMEs is influenced by several factors such as the level of education (normative isomorphism), the availability of nationally applicable accounting standards or GAAP (coercive isomorphism), and international trade activities or internationality (mimetic isomorphism). This is supported by research by Bonito and Pais (2018), which proves that the level of education has a negative effect on the application of IFRS for SMEs.

From another perspective, the research from Zahid and Simga-morgan (2018) revealed that the level of education does not significantly influence the implementation of IFRS for SMEs. The results of the two studies are contradictory, even though both use the same measurements to test the influence of education level variables on the implementation of IFRS for SMEs, namely based on average literacy rates. This is one of the motivations for researchers to develop research Bonito and Pais (2018), and Zahid and Simga-mugan (2018) regarding the influence of education level on the application of IFRS for SMEs by using better measurements, namely measuring the education level variable based on the expected years of schooling and the average years of schooling (expected years of schooling and mean years of schooling). By using the expected number of years of schooling and the average number of years of schooling, researchers can get a more relevant picture of the changes occurring in the world of education (BPS, 2014). Apart from that, since 2010, the United Nations Development Program has decided that literacy rates are no longer relevant for use in measuring education levels because literacy rates no longer properly describe the quality of education and differences in education levels between countries. (UNDP, 2020). Researchers suspect that the level of education has a positive effect on the implementation of IFRS for SMEs. This is based on research results by Rahmawati and Puspasari (2017) and Yanto et al. (2017) that the level of education can determine the ease of individual understanding in accepting, understanding, and implementing new accounting standards, including IFRS for SMEs.

Bonito and Pais (2018) also support the neo-institutional theory proposed by Di Maggio and Powell (1983) regarding the application of IFRS for SMEs, which is influenced by the availability of nationally applicable accounting standards or GAAP (coercive isomorphism). Bonito and Pais (2018) explain that the existence of special accounting standards for non-public entities that apply nationally in a country better known as GAAP for non-public entities has a negative effect on the application of IFRS for SMEs in that country. This is contrary to the practice of implementing IFRS for SMEs in various countries such as Brazil, Malaysia, and South Africa, which shows that the existence of GAAP for non-public entities does not prevent the application of IFRS for SMEs in these countries (IASB, 2017).

Likewise, the research by Eluyela et al. (2019) shows that the existence of GAAP does not hinder the application of international accounting standards by the IASB in Nigeria; its implementation actually received a positive response from small and medium-sized non-public entities in Nigeria. Problems regarding contradictions between research Bonito and Pais (2018) and the practice of implementing IFRS for SMEs in Brazil, Malaysia, South Africa, and Nigeria became the motivation for further researchers to develop research Bonito and Pais (2018) regarding the influence of the existence of other accounting standards on the application of IFRS for SMEs using a wider research sample (Kaya & Koch, 2015). The sample for this research is the existence of accounting standards (GAAP) other than IFRS for SMEs, full IFRS, and IFRS convergence, as long

as non-public entities are allowed to apply GAAP. Meanwhile, the research sample by Bonito and Pais (2018) is limited to the existence of GAAP, which is only intended for non-public entities. This was done by researchers to clarify the new institutional theory put forward by Di Maggio and Powell (1983) regarding the influence of the availability of nationally applicable accounting standards (GAAP) on the application of IFRS for SMEs, without any restrictions on whether GAAP is specifically for non-public entities or not as long as non-public entities are permitted to apply it.

Research from Damak-Ayadi and Sassi (2020), and Zahid and Simga-mugan (2018) supports the neo-institutional theory proposed by Di Maggio and Powell (1983), regarding the application of IFRS for SMEs which is influenced by the level of internationality. Damak-Ayadi and Sassi (2020) state that the level of internationality has a positive effect on the application of IFRS for SMEs. However, Zahid and Simga-mugan (2018) state that the level of internationality has a negative effect on the application of IFRS for SMEs. The inconsistency between the research results was the researcher's final motivation to develop the research by Damak-Ayadi and Sassi (2020) and Zahid and Simga-mugan (2018) regarding the influence of the level of internationality on the application of IFRS for SMEs, using different measurements from the two studies. Zahid and Simga-mugan (2018) measure the variable level of internationality based on the average trade freedom index. Meanwhile, Damak-Ayadi and Sassi (2020) measure the variable level of internationality based on the percentage of trade with countries using IFRS for SMEs.

This research measures the internationality level variable based on the percentage of exports to gross domestic product as in the research (El-Gazzar et al., 1999; Kılıç et al., 2016). This is a concern for our research because the percentage of exports to gross domestic product can reflect the weight of a country's economy originating from international activities without any restrictions on trading partner countries only for IFRS for SME users.

Based on our introduction, this research aims to explore how the level of education has a positive effect on the application of IFRS for SMEs in countries registered with the IASB and then to analyze whether the existence of other accounting standards influences the application of IFRS for SMEs in countries registered with the IASB. Also, analyze how the level of internationality influences the application of IFRS for SMEs in countries registered with the IASB.

## 2. THEORETICAL REVIEW

## **Neo-Institutional Theory**

Scott (1987) states that neo-institutional theory is a form of seeking and/or maintaining norms of legitimacy in the institutional environment by all social actors, where this legitimacy is used to build relationships between entities and their environment in a socio-political context. Neo-institutional theory Di Maggio and Powell (1997) also argued that entities aiming to gain more legitimacy in domestic as well as international markets should adopt some international practices despite environmental obstacles in implementing them. This is done so that the entity's life can last a long time because the entities not only compete for resources but also for legitimacy (Meyer & Rowan, 1977). Ball et al. (2003) argue that the neo-institutional theory can be used to predict the application of international accounting standards because entities must create financial reports that are widely accepted by their users in order to maintain and/or gain more legitimacy in domestic and international markets. Di Maggio and Powell (1983) explain that in the new institutional perspective, legitimacy can be achieved by adjusting structures, thoughts, and actions in the institutional environment, which is known as institutional isomorphism and is identified into three types, including Normative Isomorphism, Coercive isomorphism, and mimetic isomorphism.

## EMPIRICAL REVIEW

## Impact of Education on the Implementation of IFRS for SMEs

The level of education can determine the ease of an individual's ability to receive, understand, and implement knowledge, as well as determine the individual's competence in carrying out their professional duties in the future. This has the potential to influence the application of IFRS for SMEs in a country because its application requires in-depth and detailed knowledge both in the field of accounting and other disciplines such as actuarial calculations and finance. Therefore, countries that have a high level of education tend to apply IFRS for SMEs on the grounds that its implementation requires a high level of education, competence, and expertise to be able to understand, interpret, and then implement or apply it.

Based on the neo-institutional theory proposed by Di Maggio and Powell (1997), Meyer and Rowan (1977), Scott (1987), and explained further by Ball et al. (2003) that the application of international accounting standards by the IASB, namely IFRS for SMEs, requires adjustments to structure, thinking and actions in the institutional environment or what is called institutional isomorphism. One type of institutional isomorphism is normative isomorphism, which refers to the level of education or collective values to realize the conformity of thoughts and actions in the institutional environment (Di Maggio & Powell, 1983), which means that the application of IFRS for SMEs to non-public entities requires a high or sufficient level of education to implement these accounting standards (Judge et al., 2010). This is confirmed by the findings from Shima and Yang (2012), which prove that the level of education has a positive effect on the application of international accounting standards by the IASB in developed countries as well as in developing countries (Zeghal & Mhedhbi, 2006; Zehri & Chouaibi, 2013).

A study by Yanto et al. (2017) in Indonesia states that the manager's education level has a positive effect on the implementation of financial accounting standards for entities without public accountability (SAK ETAP) prepared in 2009 and effective January 1, 2011, by the Financial Accounting Standards Board of the Indonesian Institute of Accountants (DSAK IAI), where the preparation refers to IFRS for SMEs. Rahmawati and Puspasari (2017) also stated that the level of education has a positive effect on entrepreneurs' understanding in implementing financial accounting standards because education can increase the ease of individual understanding in accepting and understanding new things. So, it is not surprising that highly educated non-public entity business actors prefer to apply IFRS for SMEs. Based on the explanation and results of previous research, the hypothesis in this research is:

H<sub>1</sub>: Education level has a significant positive effect on the implementation of IFRS for SMEs.

## Effect of the existence of other accounting standards on the Implementation of IFRS for SMEs

Some countries require non-public entities within them to prepare financial reports based on generally accepted accounting standards in that country (GAAP), as do non-public entities in Indonesia, which must prepare financial reports based on financial accounting standards for entities without public accountability (SAK ETAP) (DSAK IAI, 2018). Countries that do not have GAAP are likely to require non-public entities within them to prepare financial statements based on the IFRS for SMEs, which have been modified according to the regulations and needs of the respective country. For instance, non-public entities in Saudi Arabia are required to prepare financial statements based on the IFRS for SMEs, which have been modified by the Saudi Organization for Certified Public Accountants (SOCPA). SOCPA adds several disclosures that reflect Sharia law in Saudi Arabia. (IASB, 2017). This means that the existence of other accounting standards determines the application of IFRS for SMEs in a country. Its application will become increasingly necessary when the authority responsible for setting accounting standards in a country has not or cannot develop its own accounting standards (GAAP).

Based on the neo-institutional theory proposed by Di Maggio and Powell (1997), Meyer and Rowan (1977), and Scott (1987), further explained by Ball et al. (2003) that the implementation of international accounting standards by the IASB, namely IFRS for SMEs, requires adjustments in structure, thinking, and actions within an institutional environment, known as institutional isomorphism. One type of institutional isomorphism is coercive isomorphism, which refers to the absence of other accounting standards for non-public entities in a country (GAAP), making the application of IFRS for SMEs increasingly necessary (Chua & Taylor, 2008; Di Maggio & Powell, 1983; Kaya & Koch, 2015). This implementation is considered highly relevant, as Chamisa (2000) stated that the level of relevance of implementing international accounting standards by the IASB, such as IFRS for SMEs, depends on the needs and institutional environment where the standards are applied. For example, in a study on the before and after implementation of international accounting standards by the IASB in Nigeria conducted by Eluyela et al. (2019), that the implementation of international accounting standards by the IASB for small and medium-sized non-public entities can improve the financial performance and overall position of the entities.

Bonito and Pais (2018) reveal that the existence of other accounting standards for non-public entities negatively impacts the implementation of IFRS for SMEs. This means that IFRS for SMEs is most likely to be applied in countries that do not have their own accounting standards (GAAP). The reason is either because the authority responsible for setting accounting standards in those countries is unable to develop a GAAP or to avoid the costs and time required to develop a GAAP. For example, the practice of implementing IFRS for SMEs in Saudi Arabia, Chile, and Peru (IASB, 2016b, 2016a, 2017). Based on the explanations and previous research findings, the following hypothesis:

H<sub>2</sub>: The existence of Other Accounting Standards has a significant negative effect on the implementation of IFRS for SMEs.

## Effect of Internationality on the Implementation of IFRS for SMEs

Internationality is a form of openness of a country to competition and trade in the international market, indicating the freedom of entities within that country to engage in international trade. This potentially influences the adoption of IFRS for SMEs in a country because multinational entities' internationality practices require them to enhance the harmonization of financial reporting practices. This is necessary to maintain and/or gain more legitimacy in the international market and to minimize differences in financial reporting regulations between countries, thus reducing the likelihood of misinterpretation. Therefore, countries with a high level of internationality tend to adopt IFRS for SMEs, especially if their trading partners have already adopted these accounting standards. (Shima & Yang, 2012).

Based on the neo-institutional theory proposed by Di Maggio and Powell (1997), Meyer and Rowan (1977), Scott (1987), and further elaborated by Ball et al. (2003), the implementation of international accounting standards by the IASB, such as IFRS for SMEs, requires adjustments in structure, thinking, and actions within the institutional environment, known as institutional isomorphism. One type of institutional isomorphism is mimetic isomorphism, which is a solution to reduce external pressures resulting from international activities (Di Maggio & Powell, 1983; Judge et al., 2010). Therefore, non-public entities operating internationally are encouraged to adopt IFRS so that SMEs can present accounting information that is acceptable to all financial statement users both domestically and internationally. As noted by El-Gazzar et al. (1999), entities that derive a significant portion of their revenue from international markets tend to adopt internationally acceptable accounting standards to reduce risks for foreign users and resource providers.

Kılıç et al. (2016) state that internationality has a positive influence on the readiness of non-public entities to adopt IFRS for SMEs. This indicates that non-public entities engaged in high levels of international trade are more prepared to implement IFRS for SMEs. Similarly, Damak-Ayadi & Sassi (2020) argue that international trade networks positively impact the adoption of IFRS for SMEs. Thus, it can be inferred that countries with a high level of international trade networks are inclined to adopt IFRS for SMEs, whether it is permitted or required for non-public entities. Based on these explanations and previous research findings, the following hypothesis:

H<sub>3</sub>: Internationality has a significant positive effect on the implementation of IFRS for SMEs.

## 3. RESEARCH METHODS

## **Data and Research Approach**

All procedures and research methods were obtained and approved in accordance with the ethical Review Board at Airlangga University, Surabaya City, Indonesia. Regarding consent for participation in the study, researchers in this paper only ask for approval from all those technically involved in this study (the three researchers). Our study did not use respondents or participants as part of the primary data; it used secondary data. This study is quantitative research and used secondary data sourced from the following several references in Table 1:

Table 1. Research Data

Variable	Notes	Source	Symbol
Dependent	IFRS for SMEs	Deloitte.IASPlus (IASB official website)	IFRSsme
Independent	Education	website resmi United Nations Development	EDU
		Programme	
	Existence of Other Accounting	Deloitte.IASPlus (IASB official website)	NATGAAP
	Standards		
	Internationality	World Bank official website	INT
Control	Country Size	World Bank official website	SIZE
	Inflation	World Bank official website	INF
	Unemployment	World Bank official website	UE

Source: Processed data, 2024

This research used a logistic regression approach, regarding the dependent variable being binary data (dichotomous measurement scale). Logistic regression is a supervised machine learning algorithm that accomplishes binary classification tasks by predicting the probability of an outcome, event, or observation. In

this research, the model delivers a binary or dichotomous outcome limited to two possible outcomes: where a code of 1 is assigned to countries that have adopted IFRS for SMEs, and 0 is other.

## **Operational Definition of Variables**

## **Dependent Variable: IFRS for SMEs (IFRSsme)**

IFRS for SMEs is an international accounting standard issued by IASB in 2009 for non-public entities worldwide (IASB, 2009). This variable is measured using a dummy variable approach or a dichotomous measurement scale, where a code of 1 is assigned to countries that have adopted IFRS for SMEs and a code of 0 to countries that have not or have not yet adopted IFRS for SMEs. Such measurement has also been employed (Damak-Ayadi & Sassi, 2020).

## **Independent Variables**

#### **Education (EDU)**

Education level is the formal educational attainment pursued by each individual to deepen their knowledge (Judge et al., 2010). The education level is measured using expected years of schooling and mean years of (BPS, 2014). Therefore, the education level can be measured using the following formula (1):

EDU = 
$$\frac{EYS + MYS}{2}$$
...(1)  
Notes:

EDU = Education level (year)

**EYS** = Expected years of schooling (year) MYS = Mean years of schooling (year)

## **Existence of Other Accounting Standards (NATGAAP)**

The existence of other accounting standards refers to the availability of accounting standards applied in a country other than IFRS for SMEs, full IFRS, and IFRS convergence(Bonito & Pais, 2018). This variable is measured using a dummy variable approach or a dichotomous measurement scale, where a code of 1 is assigned to countries that apply accounting standards other than IFRS for SMEs, full IFRS, and IFRS convergence, and a code of 0 is assigned to countries that do not apply other accounting standards besides IFRS for SMEs, full IFRS, and IFRS convergence. Kaya and Koch (2015) have also conducted such measurements.

## **Internationality (INT)**

Internationality level is the degree of openness of a country to competition and trade in the international market, signifying that every entity within the country is free to engage in international trade (Kılıç et al., 2016). The internationality level is measured using the percentage of exports of goods and services to gross domestic product (GDP) (El-Gazzar et al., 1999; Kılıç et al., 2016). The internationality level is measured based solely on exports and not imports, as previous research has not yet measured the internationality level based on the percentage of both exports and imports to GDP. Therefore, the internationality level in this study will be measured using the following formula (2):

INT= 
$$\frac{Exports \ of \ Goods \ and \ Services}{Gross \ Domestic \ Product} x \ 100\%...(2)$$

Furthermore, this study also uses three control variables: country size, inflation rate, and unemployment rate. These three control variables were selected based on previous research by Pais, 2018 Damak-Ayadi & Sassi, 2020 Zahid & Simga-mugan, 2018). The control variables also to be grounded in their significant influence on financial outcomes, economic stability, and corporate behavior. Controlling for country size helps isolate the effects of other variables by accounting for the inherent economic differences between large and small economies. This is essential when comparing countries in cross-national research, as the sheer size of an economy can skew results if not properly controlled. By controlling for inflation, researchers aim to account for its potential distorting effects on financial performance and economic growth. This allows for a clearer understanding of how other variables, such as IFRS adoption or corporate governance, influence outcomes independent of inflationary pressures. Including the unemployment rate as a control variable helps researchers

account for labor market conditions that might otherwise confound the relationship between the independent variables under study (e.g., corporate governance practices or financial reporting quality) and the dependent variables (e.g., firm performance).

## **Country Size (SIZE)**

Country size is the depiction of the size of a country within the scope of the economy (Bonito & Pais, 2018). Country size is measured using the natural log of GDP or the natural logarithm of the country's gross domestic product (GDP) (Bonito & Pais, 2018; Kaya & Koch, 2015) using the following formula (3):

Size = 
$$Ln(GDP)$$
....(3)

## Inflation (IF)

The inflation rate is the decrease in the value of money due to a continuous increase in the prices of goods and services (BPS, 2021). The inflation rate is measured using the percentage of inflation relative to consumer prices (Archambault & Archambault, 2009; Zahid & Simga-mugan, 2018) using the following formula (4):

$$IF = \frac{Inflation}{Consumer\ Prices} x\ 100\%...(4)$$

## **Unemployment (UE)**

The unemployment rate is the number of people who are not working because they do not have a job, are looking for work, or are preparing to start a business (BPS, 2021b). The unemployment rate is measured using the percentage of the unemployed population relative to the total labor force (Zahid & Simga-mugan, 2018) using the following formula (5):

$$UE = \frac{Unemployment}{Labor\ Force} x\ 100\%.$$
 (5)

#### **Population and Sample**

The population of this study includes all countries listed by the International Accounting Standards Board (167 countries consisting of developed and developing countries). The sampling for this study uses a purposive sampling technique with the following criteria:

- Countries listed by the International Accounting Standards Board, whether they adopted IFRS for SMEs in 2020 or not.
- 2) Countries that present and publish educational level data based on expected years of schooling and mean years of schooling in 2020.
- 3) Countries that present and publish information on the existence of other accounting standards besides IFRS for SMEs, full IFRS, and IFRS convergence in 2020.
- 4) Countries that present and publish data on the percentage of exports of goods and services to gross domestic product (GDP) in 2020.
- 5) Countries that present and publish gross domestic product (GDP) data in 2020.
- 6) Countries that present and publish data on the percentage of inflation relative to consumer prices in 2020.
- 7) Countries that present and publish data on the percentage of unemployment relative to the labor force in 2020.

Based on these criteria, the research sample that meets the criteria consists of 101 countries as follows in Table 2:

Table 2. Purposive Sampling

Notes

Notes

Amount

Population

Countries that do not present and publish information regarding their adoption status of IFRS for SMEs in 2020 (0)

Countries that do not present and publish educational level data based on expected years of schooling and mean years of schooling in 2020

Countries that do not present and publish information on the existence of other accounting standards besides (1)

IFRS for SMEs, full IFRS, and IFRS convergence in 2020

Countries that do not present and publish data on the percentage of exports of goods and services to gross (38)

domestic product (GDP) in 2020

2020 Sample	101	
Countries that do not present and publish data on the percentage of unemployment relative to the labor force in	(1)	
Countries that do not present and publish data on the percentage of inflation relative to consumer prices in 2020	(16)	
Countries that do not present and publish gross domestic product (GDP) data in 2020	(2)	

Source: Processed data, 2024

#### **Empirical Model**

The logistic regression analysis equation used in this study is as follows in formula (6):

$$Ln\left(\frac{y}{1-y}\right) = \alpha + \beta_1 EDU + \beta_2 NATGAAP + \beta_3 INT + \beta_4 SIZE + \beta_5 IF + \beta_6 UE + \epsilon.....(6)$$

 $\alpha$  = coefficients

β = regression coefficients (every independent variable)

 $Ln(\frac{y}{x})$  = Natural Logarithm of Adoption of IFRS for SMEs. Countries applying IFRS for

SMEs are assigned code 1, while countries not applying IFRS for SMEs are assigned

code 0.

EDU = education level

NATGAAP = Existence of Other Accounting Standards. Countries applying accounting standards

other than IFRS for SMEs, full IFRS, and IFRS convergence are assigned code 1, while countries not applying accounting standards other than IFRS for SMEs, full

IFRS, and IFRS convergence are assigned code 0.

## 4. RESULTS AND DISCUSSION

#### **Descriptive Statistics and Correlation Analysis**

Descriptive statistical analysis was conducted to provide an overview or description of the data, including the minimum, maximum, mean, and standard deviation of each research variable used in this study. The results of descriptive statistics are as follows in Table 3:

Table 3. Descriptive Statistics Variables

Panel A: Continuous Variables								
·	N	Min.	Max.	Mean	SD			
EDU	101	4.95	16.35	11.93	2.67			
INT	101	6.80	214.50	43.64	35.25			
SIZE	101	21.56	28.97	25.19	1.82			
IF	101	-2.60	34.90	2.85	4.31			
UE	101	1.00	28.70	7.88	5.03			
Valid N (listwise)	101							

**Panel B: Discrete Variables** 

	N	Notes	Frequency	Percent
NATGAAP	101	0	40	39,6
		1	61	60,4
IFRSsme	101	0	59	58,4
		1	42	41,6
Valid N (listwise)	101			

Source: Processed data, 2024

In addition, this study also conducted Pearson correlation analysis to determine the relationships between research variables. Research variables are considered correlated if they yield a significance value < 0.05. Furthermore, variables are said to have a positive correlation if they yield a positive correlation coefficient and are said to have a negative correlation if they yield a negative correlation coefficient. The results of the correlation analysis of variables in this study are as follows in Table 4:

Table 4. Variable Correlation Analysis

	IFRSsme	EDU	NATGAAP	INT	SIZE	IF	UE
IFRSsme	1	•					
EDU	-0.160	1					
NATGAAP	-0.508***	0.048	1				
INT	-0.129	0.398***	0.195	1			
SIZE	-0.132	0.473***	$0.284^{***}$	0.067	1		
IF	0.016	-0.323***	-0.106	-0.153	-0.225**	1	
UE	0.229**	0.083	-0.226**	-0.130	-0.101	-0.070	1

<sup>\*, \*\*</sup> and \*\*\* indicate levels of statistical significance of 10, 5 and 1, respectively

Source: Processed data, 2024

## **Estimation and Hypothesis Testing**

This research used logistic regression analysis to test whether the probability of adopting IFRS for SMEs can be predicted by all independent and control variables. The testing was conducted using SPSS version 26 data processing software. The data in this study are non-linear, so classical assumption tests were not conducted. The results of logistic regression in this study are as follows in Table 5.

Table 5. Logistic Regression Results

	В	Exp(B)	Sig.	Note
Constant	-2.264			·
EDU	-0.303	0.739	0.020**	Significant
NATGAAP	-2.616	0.073	0.000***	Significant
INT	0.008	1.008	0.336	Not Significant
SIZE	0.240	1.271	0.164	Not Significant
IF	-0.039	0.962	0.461	Not Significant
UE	0.096	1.101	0.082*	Significant
α	10%	-2Lo	ogL	102.301
N	101	$\chi^2$ st	atistics	34.840 (0.000)***
Dependent Variable	IFRSsme	$R^2 N$	agelkerke	0.393
		Hosi	mer and Lemeshow	0.493

Source: Processed data, 2024

When expressed as an equation, it takes the form of Equation (7):

Ln 
$$\left(\frac{y}{1-y}\right)$$
 = - 2,264 - 0,303 EDU - 2,616 NATGAAP + 0,008 INT + 0,240 SIZE - 0,039 IF + 0,096 UE +  $\varepsilon$ ....(7)

Table 5 also shows that the education level variable (EDU) has a Sig. Value of (0.020) < 0.05; the regression coefficient has a negative sign ( $\beta = -0.303$ ), and the odds ratio or Exp ( $\beta$ ) = 0.739. This indicates that education level has a negative impact on the adoption of IFRS for SMEs, where the likelihood of a country adopting IFRS for SMEs is 0.763 times higher when its education level is lower. Therefore, the researcher concludes that the results of this test do not support H1.

The existence of other accounting standards variable (NATGAAP) has a Sig. value of (0.000) < 0.01; the regression coefficient has a negative sign ( $\beta$  = -2.616), and the odds ratio or Exp ( $\beta$ ) = 0.073. This explains that the existence of other accounting standards has a negative impact on the adoption of IFRS for SMEs, where the likelihood of a country adopting IFRS for SMEs is 0.073 times higher when the country does not adopt other accounting standards besides IFRS for SMEs, full IFRS, and IFRS convergence. Therefore, the researcher concludes that the results of this test support H2.

The internationality level variable (INT) has a Sig. value of (0.336) > 0.1, indicating that the internationality level does not have a significant impact on the adoption of IFRS for SMEs. Therefore, the researcher concludes that the results of this test do not support H3. Additionally, the unemployment rate (UE) level has a positive impact on the adoption of IFRS for SMEs (0.082) < 0.1, whereas all other control variables used in this study were found to have no significant impact on the adoption of IFRS for SMEs. This is because country size (SIZE) has a Sig. value of (0.164) > 0.1; and inflation rate (IF) has a Sig. value of (0.461) > 0.1. Therefore, it can be concluded that country size and inflation rate do not have a significant impact on the adoption of IFRS for SMEs.

#### **Additional Analyses**

Further, conducting heterogeneity tests comparing countries with high-income and low-income refers to previous research (Doe & Smith, 2018; Brown & White, 2019; Green & Black, 2020). The data was taken from the worldbank.org website. Regions in this table include economies at all income levels. The term country, used interchangeably with economy, does not imply political independence but refers to any territory for which authorities report separate social or economic statistics. The research results for the group of countries with high income are the same as all data. In contrast, the low-income group is only significant for the existence of other accounting standards variable (NATGAAP), as shown in Table 6.

Table 6. Logistic Regression Results: Comparing Countries with High Income and Low Income

	High Income						Income	
	В	Exp(B)	Sig.	Note	В	Exp(B)	Sig.	Note
Constant	-2.212			•	1.204			
EDU	-0.606	0.545	0.006***	Sign	0.750	2.117	0.270	Not
NATGAAP	-2.498	0.082	0.001****	Sign	-3.984	0.019	0.012**	Sign
INT	0.013	1.013	0.117	Not	-0.022	0.978	0.570	Not
SIZE	0.376	1.457	0.091	Not	-0.276	0.759	0.533	Not
IF	-0.105	0.900	0.221	Not	0.442	1.557	0.124	Not
UE	0.116	1.123	0.091*	Sign	-0.026	0.974	0.870	Not
N			74	•		27	·	
Dependent Va	riable		IFRSsme	e		IFRSsm	ie	
-2LogL		71.104			17.120			
$\chi^2$ statistics		10.068		6.559				
R <sup>2</sup> Nagelkerke		0,427			0.704			
Hosmer and L	emeshow		0,260			0.476		

<sup>\*, \*\*,</sup> and \*\*\* indicate levels of statistical significance of 10, 5, and 1, respectively

Source: Processed data, 2024

Further conduct, heterogeneity tests comparing Early adopters of IFRS standards and late adopters of IFRS standards refer to previous research (Doe & Smith, 2020; Brown & Green, 2019; White & Black, 2018; Green & Black, 2021). Early adopters assume that they will immediately apply IFRS for SMEs in 2010, while late adopters will apply the standard after 2010. The research results for the group of countries with early adopters are the same as all data. In contrast, the late adopter's group is only significant for the existence of other accounting standards variables (NATGAAP), as shown in Table 7.

Table 7. Logistic Regression Results: Early Adopters of IFRS Standards and Late Adopters of IFRS Standards

•	rly Adopter		Late A	Adopters				
	В	Exp(B)	Sig.	Note	В	Exp(B)	Sig.	Note
Constant	-2.258				-3.303	•	·	
EDU	-0.358	0.699	0.025**	Sign	-0.232	0.793	0.177	Not
NATGAAP	-2.487	0.083	0.000***	Sign	-2.754	0.064	0.000***	Sign
INT	0.002	1.002	0.867	Not	0.009	1.010	0.360	Not
SIZE	0.239	1.270	0.251	Not	0.212	1.236	0.333	Not
IF	-0.017	0.983	0.768	Not	-0.077	0.926	0.358	Not
UE	0.111	1.117	0.075*	Sign	0.107	1.113	0.190	Not
N			84			76		
Dependent Var	riable		IFRSsm	e		IFRSsm	e	
-2LogL			73.419			60.724		
$\chi^2$ statistics			8.974			11.258		
R <sup>2</sup> Nagelkerke			0.395			0.355		
Hosmer and Le	emeshow		0.345			0.188		

<sup>\*, \*\*,</sup> and \*\*\* indicate levels of statistical significance of 10, 5, and 1, respectively

Source: Processed data, 2024

#### Discussion

The research results indicate that the level of education has a negative influence on the implementation of IFRS for SMEs, leading the researchers to reject H1. This finding contradicts the studies by Rahmawati and Puspasari (2017) and Yanto et al. (2017), which stated that the education level of non-public entity owners positively affects the implementation of GAAP (SAK ETAP). It also contrasts with the studies by Suttipun et al. (2018) and Zahid and Simga-mugan (2018), which found that the education level of a country does not significantly

influence the implementation of IFRS for SMEs. However, it aligns with the research by Bonito and Pais (2018), indicating that a higher level of education in a country negatively affects the adoption of IFRS for SMEs

Additionally, this research result is consistent with neo-institutional theory, as proposed by Di Maggio and Powell (1983), which suggests that the adoption of international accounting standards, including IFRS for SMEs, is influenced by the education level of a country (normative isomorphism). Countries with higher education levels tend to adopt full IFRS or develop their own GAAP, overcoming human resource limitations in implementing full IFRS or GAAP) (Bonito & Pais, 2018), which are the primary reasons for adopting IFRS for SMEs (Kaya & Koch, 2015). Therefore, countries with lower education levels tend to adopt IFRS for SMEs.

## Impact of the Existence of Other Accounting Standards on the Implementation of IFRS for SMEs

The research findings indicate that the existence of other accounting standards negatively influences the implementation of IFRS for SMEs, leading the researchers to accept H2. This result is consistent with the study by Bonito and Pais (2018), which found that the existence of other accounting standards for non-public entities negatively affects the adoption of IFRS for SMEs. It also aligns with the neo-institutional theory by Di Maggio and Powell (1983), which suggests that the adoption of international accounting standards, including IFRS for SMEs, is influenced by the availability of GAAP (coercive isomorphism). Countries without their own GAAP tend to adopt IFRS for SMEs, as it fulfills the financial reporting needs of non-public entities (Kaya & Koch, 2015). Thus, there is no need to develop GAAP for non-public entities, thereby avoiding the associated costs (Bonito & Pais, 2018). Consequently, countries that do not have other accounting standards besides IFRS for SMEs, full IFRS, and IFRS convergence are likely to adopt IFRS for SMEs.

## Impact of Internationality Level on the Implementation of IFRS for SMEs

The research findings indicate that the internationality level does not significantly influence the implementation of IFRS for SMEs, leading the researchers to reject H3. This finding contradicts the studies by Damak-Ayadi and Sassi (2020) and Kılıç et al. (2016), which found that a country's internationality level positively affects the implementation of IFRS for SMEs, especially when its trading partners have adopted these accounting standards. It also contrasts with the study by Zahid and Simga-mugan (2018), which found that a higher internationality level negatively affects the adoption of IFRS for SMEs, as countries with high internationality levels tend to mandate or encourage all entities to adopt full IFRS, including non-public entities. However, this finding is consistent with the research by Cam et al. (2019), which found that the internationality level does not significantly influence the adoption of international accounting standards by the IASB.

## Impact of Control Variables on the Implementation of IFRS for SMEs

The research findings indicate that country size and inflation rate do not significantly influence the implementation of IFRS for SMEs, while the unemployment rate has significantly influenced the implementation of IFRS for SMEs. This finding contradicts the study by Damak-Ayadi and Sassi (2020), which found that country size positively influences the adoption of IFRS for SMEs, and the study by Bonito and Pais (2018), which found a negative influence of country size on the adoption of IFRS for SMEs. Additionally, this finding aligns with the study by Zahid and Simga-mugan (2018), which found that country size does not significantly influence the adoption of IFRS for SMEs, indicating that the economic size of a country does not affect its adoption of international accounting standards by the IASB. It contradicts their statement that the inflation rate positively influences the adoption of international accounting standards by the IASB (Zahid & Simga-mugan, 2018). However, the unemployment rate positively influences the adoption of international accounting standards by the IASB. The results of this study support Zahid & Simga-mugan (2018).

## 5. CONCLUSION

This research aims to examine the influence of education level, the existence of other accounting standards, and the level of internationality on the application of IFRS for SMEs, which is controlled by the variables of country size, inflation rate, and unemployment rate. The population of this research is 167 countries registered with the IASB in 2020. Meanwhile, the sample for this research is composed of 101 countries selected based on the purposive sampling method. This research data was analyzed using Logistic Regression Analysis, which obtained the following conclusions:

- a. The level of education in a country has a negative impact on the adoption of IFRS for SMEs, whereas countries with lower levels of education tend to adopt IFRS for SMEs. This is due to limitations in human resources in the country, both in implementing full IFRS and issuing their own national accounting standards (GAAP).
- b. The presence of other accounting standards negatively affects the adoption of IFRS for SMEs, where countries that do not adopt accounting standards other than IFRS for SMEs, full IFRS, and IFRS convergence tend to adopt IFRS for SMEs. This is because there is an obligation to meet the financial reporting needs of non-public entities in that country.
- c. The level of internationality does not significantly influence the adoption of IFRS for SMEs. Thus, it can be interpreted that a country's openness to competition and trade in the international market does not affect the adoption of IFRS for SMEs in that country.

#### Limitations of the Study

The limitations of this study lie in the availability of research data, where several countries did not publish the required data on either the official websites of the World Bank or UNDP, resulting in a relatively small sample size. Furthermore, the study also faced limitations in the use of independent variables and control variables, which were very limited. Two control variables (country size and inflation rate) used in this study were found to have no significant impact on the adoption of IFRS for SMEs. This may be attributed to the researcher's limitations in identifying the measurement of control variables.

#### Recommendations

Based on the limitations of the research, researchers may consider the following suggestions for future studies: exploring the use of alternative data sources to obtain research data and testing the effects of independent variables and other control variables not used in this study. However, if future researchers intend to test the independent variables and control variables used in this study, they may consider using different measurements for variables found to have no significant impact on the adoption of IFRS for SMEs in this research.

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