

Market Value of Equity Model before and after the Implementation of IFRS

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Abstract

This study examined the impact of IFRS convergence on the structural model of Market Value of Equity. Determinants tested that affect to Market Value of Equity (MVE) are Earnings per Share (EPS), Equity per Share (EQPS), Price per Share (PPS). The researchers observed the difference of Market Value of Equity models through a comparison of regression analysis results and structural models before and after IFRS convergence. The method used is a survey method using secondary data specifically of financial statements with quantitative analysis techniques in the sector of trade in goods and services listed on the Indonesian stock exchange. The results show that the EPS has a significant influence on the MVE after the adoption of IFRS, whereas before the application of IFRS, EPS has no influence on MVE. In the contrary to these results, EQPS has an influence on MVE prior to the application of IFRS, whereas after the adoption of IFRS, EQPS has no influence on MVE. Furthermore, PPS has an influence on MVE both before and after the implementation of IFRS. However, EPS, EQPS and PPS simultaneously have positive impact to MVE, both before and after the implementation of IFRS. In terms of Goodness of Fit, the structural equation model before IFRS convergence is better than it is after IFRS convergence (based on AICtest, SIC test and Hannan-Quinn criter).

Keywords

convergence; IFRS; model; market value of equity



I. Introduction

High quality accounting standards are standards consisting of neutral, consistent, comparable, reliable and relevant comprehensive principles that are useful to investors, creditors and others in decision-making regarding capital allocation (SEC 2000 in Roberts et al. 2005). Accounting standards determine the presentation and disclosure of financial statements by the company because the level of openness and presentation of information set in detail by the standards applied. Generally, the applicable accounting standards are regulations which, if not complied with, will be subject to sanctions (Belkaoui in Situmorang, 2011) by authorities such as the Capital Market Supervisory Agency.

The rapid development of global equity markets has also affected the development of the accounting standards. Global equity markets have a very important position in the national and global economy as it becomes one of the main drivers of the economy. Therefore, the need arising from the development of equity market is an important concern for decision makers. Some of the main demands of equity market stakeholders are increased

public disclosures, investor protection, shareholder value and corporate governance (Choi, 2005). In addition, the global capital market also requires a similarity in corporate financial reporting globally because it can facilitate the assessment and comparison of performance between related companies. The existence of the company can grow and be sustainable and the company gets a positive image from the wider community (Saleh, 2019). Besides, the similarity of reporting also helps multinational companies in making consolidated financial statements between parent companies and their subsidiaries located in different countries

International Financial Reporting Standards (IFRS) is an international standard for accounting issued by the International Accounting Standards Board (IASB). IFRS was composed by four major international organizations: the International Accounting Standards Board (IASB), the European Commission (EC), the Capital Market International Organization (IOSOC), and the International Accounting Federation (IFAC). The IASB was formerly known as the International Accounting Standards Committee (IASC), an independent standards-setting body for the private sector founded in 1973 by a professional accounting organization of nine countries.

IFRS is believed to be able to improve the performance and public responsibility of the company because IFRS, as a global standard, is designed to improve the quality of financial statement disclosure as a form of a better investor protection. The belief is evident from some research results on IFRS. It is recognized as a superior accounting standard compared to domestic accounting standards as it enhances comparability, improves enterprise environmental information and contributes effectively to low capital costs in the work of Barth (2008).

The IFRS implementation in Indonesia is carried out through a convergence process. The IFRS Convergence is defined as a mechanism or stage by a country to replace its national accounting standard with IFRS. This process is more common in developing countries (Nobes, 2010). Convertible SAKs have been required for companies registered in Indonesia Stock Exchange (IDX) since January 1, 2012. Therefore, the researchers conducted the research of Market Value Of Equity Model before and after the implementation of IFRS.

II. Research Method

One of the important stages in a research is to make the research design because it determines the direction of the research process in accordance with the correct methodology to achieve the goals set. According Creswell (2009: 3), "Research design are plans and procedures for research that span the decisions from board assumptions to detailed methods of data collection and analysis ". In a broad sense, a research design is the whole process of design and implementation of a research while in a narrow sense, a research design means the methods and procedures of data collection and analysis used in explaining the research (Ikhsan, 2008: 88).

To analyze the data, the researchers used descriptive statistics and inferential statistics. The use of descriptive statistics was intended to describe and briefly present information on a large number of data and variables. Descriptive statistics are statistics that illustrate the phenomenon of interest (Sekaranm, 2006: 284). Through descriptive statistical analysis, the researchers converted the raw data into a form that can provide information to describe a set of factors in a state that includes mean, varian, standard deviation, mode, median, range, and so on. Then, the use of inferential statistics or inductive statistics was intended to make inferences (predictions or decisions) about a population based on information contained in a sample. In other words, inferential statistics are able to draw conclusions from the sample to the population.

III. Discussion

3.1 Overview of the Objects

Not all companies whose data can be used because there are some companies that do not have data in 2011 or in 2013. In addition, some companies have data that are very different from other data such as the big difference between the data of 2011 and those of 2013 (one is positive and the other one is negative). The researchers categorized those data as outlier data or annoying data.

Before analyzing the data, the researchers performed a series of classical assumption test first to find out whether there were symptoms of data deviation and to ensure the structural equation model was BLUE (best, linear, unbiased, estimator). In this research, five Classical Assumption tests were performed. They were Normality, Multicollinearity, Heteroscedasticity, Autocorrelation, and Linearity.

Table 1. Description of changes in firm value after IFRS convergence

		Mean	N
Pair 1	MVE_2011	44797.3148	54
	MVE_2013	74584.0926	54
Pair 2	EPS_2011	99.8139	54
	EPS_2013	89.3096	54
Pair 3	EQPS_2011	350.6646	54
	EQPS_2013	801.2335	54
Pair 4	PPS_2011	1943.7222	54
	PPS_2013	1584.2963	54

Source: Processed from secondary data with Eviews V.9.0

3.2 Classic Assumption Test

a. Normality Test

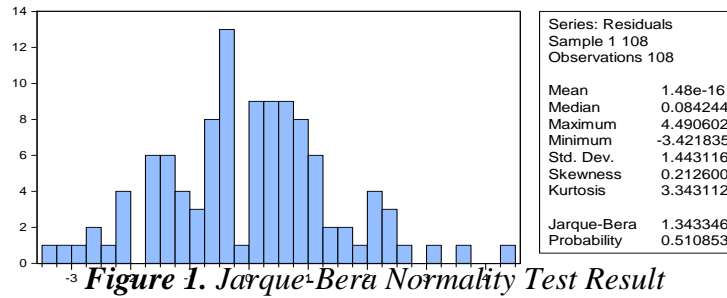
A good model is the one having a normally distributed residual value. Therefore, the Normality Test was not performed on each variable but on its residual value. The test method used in this research was through Kolmogorov-Smirnova Test, and Jarque-Bera Histogram Test.

Table 2. Kolmogorov-Smirnov Normality Test Result

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		107.00
Normal Parameters ^{a,b}	Mean	0.00
	Std. Deviation	0.59
Most Extreme Differences	Absolute	0.06
	Positive	0.06
	Negative	(0.04)
Test Statistic		0.06
Asymp. Sig. (2-tailed)		.200c,d

Source: Processed from secondary data with SSS V.23

The test results showed that the Asymp.Sig (2-tailed) value is of $0.2 > 0.05$ (Kolmogorov-Smirnova Test) and for the Jarque-Bera Test, the probability JB value is of $0.510 > 0.05$. This suggests that the residual study data came from a normally distributed population, and the regression model fulfilled the assumption of normality.



Source: Processed from secondary data with Eviews V.9.0

b. Multicollinearity Test

Multicollinearity testing was performed to determine whether or not there was a strong correlation among independent variables in a multiple linear regression model. If there is a strong correlation, then there is a multicollinearity problem that must be solved first. The test method used in this research was the Variance Inflation Factor (VIF) and Tolerance (TOL) Test. The results showed that for all variables, the value of $TOL > 0.10$ and $VIF < 10$. This means that there is no multicollinearity to the research data.

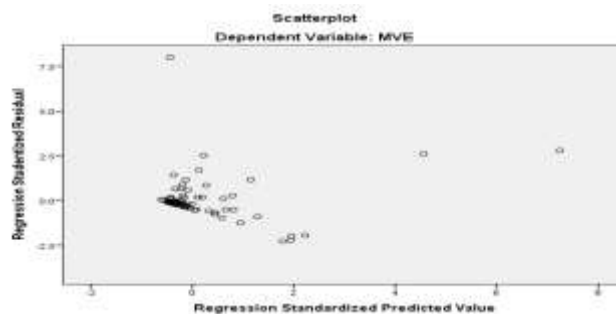
Table 3. Multicollinearity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	8,467.07	12,932.18		0.65	0.51		
EPS	(99.16)	77.56	(0.13)	(1.28)	0.20	0.55	1.83
EQPS	11.72	9.56	0.11	1.23	0.22	0.70	1.43
PPS	30.53	3.85	0.70	7.94	0.00	0.68	1.46

Source: Processed from secondary data with SSS V.23

c. Heteroscedasticity Test

Heteroskedasticity test is performed to find out whether in a regression model there is a variance inequality of the residual of an observation to another observation. A good regression equation model is a model which is homoscedastic or not heteroscedastic. In other words, the residual of an observation to another observation is fixed or that the error has the same variant. The test method used in this research is Scatterplot method which is reinforced by Glejser Test. The scatterplot images showed that the dots did not form a regular pattern (wavy, widened or narrowed). Nevertheless, most of the dots were seen collecting somewhere. Therefore, so it was suspected there were few symptoms of heteroscedasticity in the research data.



Source: Processed from secondary data with SSS V.23

However, through Glejser Test, it was found out that the value of F Distribution is of $0,26 > 0,05$. This means that there was no heterokedastisitas happening to the research data. For robust regression model results, the researcher decided that the model analysis made in the form of log-linear regression equation.

Table 4. Glejser Heteroscedasticity Test Results.

Items	Coefficient	Items	Coefficient	Kesimpulan	Intepretasi
F-statistic	1.35	Prob. F(3,104)	0.26	$0.26 > 0.05$	Tidak terjadi heteroskedastisitas
Obs*R-squared	4.04	Prob. Chi-Square(3)	0.26		
Scaled explained SS	4.16	Prob. Chi-Square(3)	0.24		

Source: Processed from secondary data with SSS V.23

d. Test Autocorrelation

This test is conducted to determine whether there is a correlation between period t with the previous period ($t - 1$). The test method used is Breusch-Godfrey Test. From Breusch-Godfrey test result, it was found out that the Prob value. F-stat was of $0.8394 > 0.05$. **This means, that there was no autocorrelation in the research data.** This is reinforced by Durbin-Watson Test result which was of $1.88 > 1.68$ (table dU), but was less than $4 - 1.68 = 2.32$.

Table 5. Breusch-Godfrey Test Results

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.175315	Prob. F(2,102)	0.8394
Obs*R-squared	0.369983	Prob. Chi-Square(2)	0.8311

Test Equation:

Dependent Variable: RESID

Method: Least Squares

Date: 09/05/16 Time: 15:39

Sample: 1 108

Included observations: 108

Presample missing value lagged residuals set to zero.

Source: Processed from secondary data with Eviews V.9.0

e. Linearity Test

This test was conducted to determine whether or not two variables have a linear significant relationship. The test method used was Ramsey Test Test. From the results of Ramsey Test, it was found that the value of Prob. F-stat was of $0.70 > \text{sig.}\alpha 0.05$. This means that the regression equation model had satisfied linearity assumptions.

Based on the results of all Classical Assumption Test above, it is concluded that the research data have met the requirements or passed all tests. Thus, this research data can be included in subsequent tests.

Table 6. Ramsey Test Test Results

Equation: UNTITLED

Specification: LOG(Y) C LOG(X1) LOG(X2) LOG(X3)

Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.526449	103	0.5997
F-statistic	0.277148	(1, 103)	0.5997
Likelihood ratio	0.290212	1	0.5901

F-test summary:			
	Sum of Sq.	df	Mean Squares
Test SSR	0.597990	1	0.597990
Restricted SSR	222.8364	104	2.142658
Unrestricted SSR	222.2384	103	2.157654

Source: Processed from secondary data with Eviews V.9.0

3.2 Stationarity and Cointegration Test

a. Stationarity Test

After fulfilling the prerequisites of the classical assumption testing, the researchers before doing regression analysis, needed to know in advance whether or not the variables used were stationary. If the data are not stationary, the model of the regression equation will be good, the autocorrelation shall arise and the researchers will not be able to generalize the regression results for different time. Conversely, if the data to be used are stationary, then the data can be forwarded to the Model Test by using ordinary least square – OLS. The stationary data are flat, constant, and contain no trend components.

The stationarity test with Augmented Dickey Fuller (ADF) is a stationarity test by determining whether time series data contain root units. In principle, unit root test is intended to observe whether a particular coefficient of the model is one or not. If the data are not stationary, then there will be root unit problem. The existence of the root problem unit can be seen by comparing the value of t-statistics with the test value of Augmented Dickey Fuller.

Table 7. Data Stationarity Test Results of Augmented Dickey Fuller

No	Variabel	Test Critical Value (5%)	t-Statistic	Nilai Probality ADF	$\alpha = 5\%$	Kesimpulan	Interpretasi
1	EPS	(2.8887)	(10.8365)	0,0000	0,05	H ₀ ditolak , H ₃ diterima	Stasioner
2	EQPS	(2.8887)	(10.3799)	0,0000	0,05	H ₀ ditolak , H ₃ diterima	Stasioner
3	PPS	(2.8887)	(10.4199)	0,0000	0,05	H ₀ ditolak , H ₃ diterima	Stasioner
4	MVE	(2.8887)	(10.4922)	0,0000	0,05	H ₀ ditolak , H ₃ diterima	Stasioner

Source: Processed from secondary data with Eviews V.9.0

Augmented Dickey Fuller test results above show that for all variables, the value of t-Statistic < Test Test Critical Value 5%; and the value of Probability ADF 0,0000 < 0.05, then the null hypothesis (H₀) is rejected and alternative hypothesis (H_a) is accepted. This means all variables are stationary.

b. Cointegration Test

After the research data are proven to be stationary, the next step is to identify whether the data are cointegrated or not. Cointegrated data are data that have a cointegration relation. In general, if the research data are stationary then the variables of which are cointegrated or have a long-term relationship. Therefore, a model formed from cointegrated data is a model that can be used for a long term. The test method used in this research is unit roots test.

Table 8. Cointegration Test Results of Unit Roots Test

No	Variabel	Trace Statistic	Critical Value 5%	Max-Eigen Statistic	Critical Value 5%	Interpretasi
1	None *	84.6167	47.8561	30.95423	27.58434	Terkointegrasi

Source: Processed from secondary data with Eviews V.9.0

Based on unit roots test above, it was found out that Trace Statistic value > Critical Value 5% value, and Max-Eigen Statistic value > Critical Value 5% value. This means that in the long run there is a cointegration in the regression equation model.

3.3 Model Test

a. The Influence of Earnings per Share (EPS), Equity Per Share (EQPS) and Price Per Share (PPS) on Market Value of Equity (MPE)

The Influence of of EPS, EQPS and PPS on MVE before IFRS (2011). To find out the effect of Earning per Share, Equity per Share, Price per Share on Market Value of Equity before the application of IFRS in 2011, the researchers used Eviews V.90 statistical tools. The following is the result of Eviews analysis based on secondary data used.

Table 9. The Analysis of EPS, EQPS and PPS effects on MVE before IFRS (in 2011)

Dependent Variable: LOG(Y)
 Method: Least Squares
 Date: 09/01/16 Time: 11:31
 Sample: 1 54
 Included observations: 54

Variable	Coefficien	t	Std. Error	t-Statistic	Prob.
C	18.18093	1.143190	15.90369	0.0000	
LOG(X1)	-0.102153	0.092025	-1.110058	0.2723	
LOG(X2)	0.277048	0.099733	2.777882	0.0077	
LOG(X3)	1.230766	0.142071	8.663021	0.0000	
R-squared	0.608555	Mean dependent var	27.13380		
Adjusted R-squared	0.585068	S.D. dependent var	2.140702		
S.E. of regression	1.378938	Akaike info criterion	3.551691		
Sum squared resid	95.07349	Schwarz criterion	3.699023		

Log likelihood	-91.89567	Hannan-Quinn criter.	3.608512
F-statistic	25.91060	Durbin-Watson stat	1.883994
Prob(F-statistic)	0.000000		

Source: Processed from secondary data with Eviews V.9.0

To make it easier to interpret the results of Eviews analysis calculations above, the researchers summarized it in the form of the table below.

Table 10. The t and p-value of Each Independent Variable

No	Variabel	Nilai t			Probability			Intepretasi
		hitung	tabel	Kesimpulan	p-value	$\alpha = 5\%$	Kesimpulan	
1	EPS	-1,11	1,67	-1,11 < 1,67	0,2723	0,05	0,2723 > 0,05	Tidak berpengaruh
2	EQPS	2,77	1,67	2,77 > 1,67	0,0077	0,05	0,0077 < 0,05	Berpengaruh
3	PPS	8,66	1,67	8,66 > 1,67	0,0000	0,05	0,0000 < 0,05	Berpengaruh

Source: Processed from secondary data with EVIEWS V.9.0

Furthermore, the results can be described in the form of a structural model of regression equation. This model describes a relationship between the dependent variable (dependent variable) and the independent variable (independent variable). This regression equation model is useful for estimating or predicting the value of dependent variable. The regression model can be obtained by estimating the parameters of the structural equation with one of the methods i.e. ordinary least square method. The ordinary least square method is an estimation method that minimizes the sum of the remaining squares. Estimators obtained by the ordinary least squares method must meet the BLUE (best linear unbiased estimator) criteria. The research data used have passed the classical assumption test. Therefore, it can be said that the data fulfilled the BLUE elements.

The effects of Earning per Share, Equity per Share, Price per Share on Market Value of Equity prior to IFRS 2011, can be illustrated in the SEM model below:

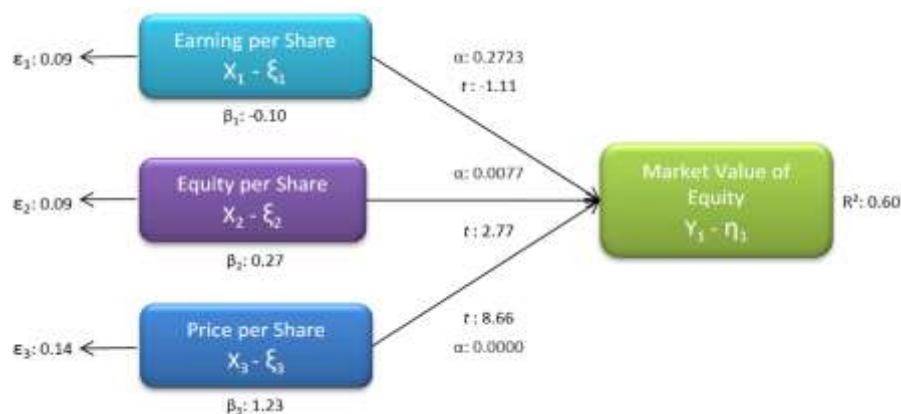


Figure 3. Company value model before the IFRS implementation

Based on the SEM model above, the general model form of multiple linear regression equations with the number of t independent variables can be written in the form of structural mathematical equations as follows:

$$y : \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_t X_t + \varepsilon \quad \rightarrow \text{equation (1)}$$

If the observations concerning Y, X1, X2, X3 Xt are expressed with each of Yi, Xi1, Xi2, Xi3 Xit and standard error is ε_i , then the structural mathematical equation (1) above can be written:

$$y_i : \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \dots + \beta_t X_{it} + \varepsilon_i \quad \rightarrow \text{equation (2)}$$

Based on equations (1), and (2) above, we get the model of multiple linear regression equation as follows:

$$y : \beta X + \varepsilon \quad \rightarrow \text{equation(3)}$$

in which:

y : *dependent variable (response)*

β : *variable parameter predictor*

X : *independent variable (predictorr)*

ε : *standard error (remaining)*

Thus, based on equations (1), (2) and (3) above, taking into consideration the results of the Eviews analysis, the mathematical model of structural equation is as follows:

$$y_1 : \beta_0 + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \varepsilon_1 \quad \rightarrow \text{equation (4): before IFRS}$$

$$y_2 : \beta_0 + \beta_{21} X_{21} + \beta_{22} X_{22} + \beta_{23} X_{23} + \varepsilon_2 \quad \rightarrow \text{equation (5): after IFRS}$$

As it has been explained earlier, the research data had few symptoms of heteroscedasticity, which when viewed from the scatterplot image, most of the dots were seen to gather in a place. Although through the Glejser Test, the Probability value of F is of $0.26 > 0.05$ which means that there is no heterocedasticity happened to the research data, but to create a robust model, then the model analysis was made in the form of log-linear. Thus, (4) and (5) above can be expressed as follows:

$$\ln(y_1) : \beta_0 + \beta_{11} \ln(X_{11}) + \beta_{12} \ln(X_{12}) + \beta_{13} \ln(X_{13}) + \varepsilon_1 \quad \rightarrow \text{equation (6) : before IFRS}$$

$$\ln(y_2) : \beta_0 + \beta_{21} \ln(X_{21}) + \beta_{22} \ln(X_{22}) + \beta_{23} \ln(X_{23}) + \varepsilon_2 \quad \rightarrow \text{equation(7): after IFRS}$$

To get the value of β_0 (constant) as close as possible to the actual β_0 value, the estimation interval can be used. The estimation interval equation can be written as follows:

$$\beta_0 \pm t_{(n-k), \alpha/2} \text{ Se}(\beta_0) \quad \rightarrow \text{equation (8)}$$

in which:

β_0 : *the constant of the regression equation model*

t : *t table*

$(n-k), \alpha/2$: *degree of freedom (df-2 or 52) with $\alpha/2 : 5\% / 2 = 2.5\%$*

Se : *standard error of regression*

Next in the linear equation model we need to do a significant Test. The purpose of this test is to check whether or not the coefficients $\beta_1, \beta_2, \dots, \beta_t$ resulting from the samples match the actual population parameter values. Thus, to obtain the value of $\beta_1, \beta_2, \dots, \beta_t$ and so on as close as possible to the actual values of $\beta_1, \beta_2, \dots, \beta_t$ of the independent variables, the equation model (8) above can be expressed as follows:

$$\beta_1 \pm t_{(n-k), \alpha/2} \text{ Se}(\beta_1) \quad \rightarrow \text{equation (9)}$$

Based on the equation models (6) and (7) above, the researchers looked at how the dependent variables affected the independent variables. Then, the researchers examined whether all independent variables either partial or simultaneous have influence on the dependent variable, namely the value of the company (MVE). The value of regression equation model obtained from Eviews calculation above is as follows:

$$\text{LOG}(Y) = 18.1809318246 - 0.102152971798 * \text{LOG}(X1) + 0.277047571627 * \text{LOG}(X2) + 1.230766184 * \text{LOG}(X3)$$

SE : (1,14) (0,09) (0,09) (0,14)
 t-Stat : 15,90 -1,11 2,77 8,66
 R² : 0,60
 F-Stat : 25,91,
 F-tabel : 2,69 dengan Sig. α : 5% (0,05)

In which:

Y : *market value of equity – MVE*

X1 : *earning per share - EPS*

X2 : *equity per share - EQPS*

X3 : *price per share - PPS*

The above mathematical equation model above when translated into the form of log linear regression equation model becomes the following equation:

Ln (Y₁) : 18.18 – 0.10 ln(X₁₁) + 0.27 ln(X₁₂) + 1.23 ln(X₁₃) → *equation(10)*;

atau

MVE : 18.18 - 0.10 EPS + 0.27 EQPS + 1.23 PPS

Since the parameter estimation value (β) did not focus on one point but based on a certain range, the estimation turned out to have the highest (max) and the lowest value (min). This interval is better known as the estimated interval or confidence interval containing the assertion that the interval contains the parameter value. This research used $\alpha = 5\%$ or 95% confidence level which is a reliable estimate, then the value of *t* table for df-2 or N = 52 with $\alpha / 2 = 2.5\%$ is 2.00665. Using the equation (10) above we obtain the estimation interval for β_0 , β_1 , β_2 and β_3 which are as follows:

Y : 18.18 – 0.10X₁ + 0.27 X₂ + 1.23 X₃

Se: (1,14) (0,09) (0,09) (0,14)

1. The estimation interval for β_0 is :

$\beta_0 \pm t_{(n-k), \alpha/2} \text{Se}(\beta_0)$

18.18 - 2.00665 (1.14) = 15.8924

18.18 + 2.00665 (1.14) = 20.4676

15.8924 ≤ β_0 ≤ 20.4676

This means that the actual value for β_0 lies at the interval between 15.8924 and 20.4676. Since the estimated value of β_0 is 18.18, it can be said that the regression equation model used for estimation is correct.

2. The estimation interval for β_1 is:

$$\begin{aligned} &\beta_1 \pm t_{(n-k), \alpha/2} \text{Se}(\beta_1) \\ &-0.10 - 2.00665 (0.09) = -0.2806 \\ &-0.10 + 2.00665 (0.09) = 0.0806 \\ &-0.2806 \leq \beta_1 \leq 0.0806 \end{aligned}$$

This means that the actual value for β_1 lies at the interval between -0.2806 and 0.0806. Since the estimated value of β_1 is -0.10, it can be said that the model of regression equation used for estimation is correct.

3. The interval estimation for β_2 is :

$$\begin{aligned} &\beta_2 \pm t_{(n-k), \alpha/2} \text{Se}(\beta_2) \\ &0.27 - 2.00665 (0.09) = 0.0894 \\ &0.27 + 2.00665 (0.09) = 0.4506 \\ &0.0894 \leq \beta_2 \leq 0.4506 \end{aligned}$$

This means that the actual value for β_2 lies at the interval between 0.0894 and 0.4506. Since the estimated value of β_2 is 0.27, it can be said that the regression equation model used for estimation is correct.

4. The interval estimation for β_3 is:

$$\begin{aligned} &\beta_3 \pm t_{(n-k), \alpha/2} \text{Se}(\beta_3) \\ &1.23 - 2.00665 (0.14) = 0.9491 \\ &1.23 + 2.00665 (0.14) = 1.5109 \\ &0.9491 \leq \beta_3 \leq 1.5109 \end{aligned}$$

This means that the actual value for β_3 lies at the interval between 0.9491 and 1.5109. Since the estimated value of β_3 is 1.23, it can be said that the regression equation model used for estimation is correct.

EPS toward MVE: it is known that the EPS calculated t-value is 1.11 <1.67 and p-value of EPS is 2.2723 > 0.05, then H_{1o} is accepted and H_{1a} is rejected. With a 95% confidence level, it can be concluded that statistically, **variable EPS has no impact on MVE variable.**

EQPS toward MVE: it is known that the EQPS calculated t-value is 2.77 > 1.67 and the p-value of EQPS is 0.000 <0.05, then H_o is rejected and H_a is accepted. With a 95% confidence level, it can be concluded that statistically, **variable EQPS variable has impacts on variable MVE**

PPS toward MVE: it is known that the PPS calculated t-value is 8,66 > 1,67 and the p-value of PPS is 0,0000 <0,05, hence H_o is refused and H_a is accepted. With a 95% confidence level, it can be concluded that statistically, **variable PPS has impacts on Variable MVE**

b. The Impacts of EPS, EQPS and PPS on MVE after IFRS (2013)

To determine the effects of *Earning per Share*, *Equity per Share*, *Price per Share* on *Market Value of Equity* after IFRS implementation in 2013. The researchers use statistical tools of Eviews V.90. Below is the result of Eviews analysis based on secondary data used.

Table 11. The analysis of EPS, EQPS and PPS effects on MVE after IFRS (2013)

Dependent Variable: LOG(Y)
 Method: Least Squares
 Date: 09/02/16 Time: 14:48
 Sample: 1 54
 Included observations: 54

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21.01432	1.073492	19.57568	0.0000
LOG(X1)	-0.211013	0.085664	-2.463264	0.0173
LOG(X2)	0.095832	0.084008	1.140745	0.2594
LOG(X3)	1.066423	0.161897	6.587056	0.0000

R-squared	0.482843	Mean dependent var	27.85225
Adjusted R-squared	0.451814	S.D. dependent var	2.021046
S.E. of regression	1.496374	Akaike info criterion	3.715154
Sum squared resid	111.9568	Schwarz criterion	3.862486
Log likelihood	-96.30916	Hannan-Quinn criter.	3.771974
F-statistic	15.56084	Durbin-Watson stat	1.916546
Prob(F-statistic)	0.000000		

To make it easier to interpret the results of Eviews analysis calculations above, the researchers summarize it in the form of the table below.

Table 13. The t and p- values of each Independent Variable

No	Variabel	Nilai t			Probability			Intepretasi
		hitung	tabel	Kesimpulan	p-value	$\alpha = 5\%$	Kesimpulan	
1	EPS	-2,46	1,67	-2,46 > 1,67	0,0173	0,05	0,0173 < 0,05	Berpengaruh
2	EQPS	1,14	1,67	1,14 < 1,67	0,2594	0,05	0,2594 > 0,05	Tidak berpengaruh
3	PPS	6,58	1,67	6,58 > 1,67	0,0000	0,05	0,0000 < 0,05	Berpengaruh

Source: Processed from secondary data with EVIEWS V.9.0

The impacts of *Earning per Share*, *Equity per Share*, *Price per Share* on *Market Value of Equity* after the implementation of IFRS 2013, can be described in the SEM model below:

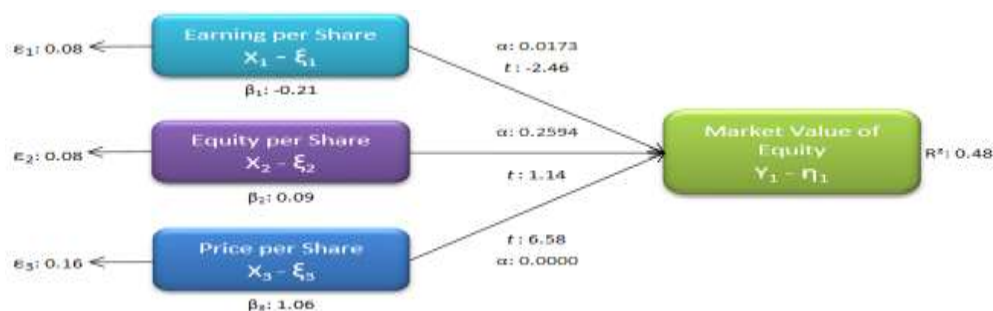


Figure 4. Market Value Model after IFRS implementation

The value of regression equation model obtained from Eviews calculation above is as follows:

$$\text{LOG}(Y) = 21.0143242717 - 0.211012954421 * \text{LOG}(X1) + 0.0958315126059 * \text{LOG}(X2) + 1.06642288462 * \text{LOG}(X3)$$

SE : (1,07) (0,08) (0,08) (0,16)
 t-Stat : 19,57 -2,46 1,14 6,58
 R² : 0,48
 F-Stat : 15,56
 F-tabel : 2,69 with Sig. α : 5% (0,05)

In which:

Y : *market value of equity – MVE*
 X1 : *earning per share - EPS*
 X2 : *equity per share - EQP*
 X3 : *price per share - PPS*

The mathematical equation model above if translated into the form of regression equation model, the model of regression equation will be as follows:

$$\text{Ln}(Y_2) : 21.01 - 0.21 \ln(X_{21}) + 0.09 \ln(X_{22}) + 1.06 \ln(X_{23}) \rightarrow \text{equation (11)};$$

or

$$\text{MVE} : 21.01 - 0.21 \text{EPS} + 0.09 \text{EQPS} + 1.06 \text{PPS}$$

Based on the results of the research,

EPS to MVE: it was known that the value of t arithmetic EPS is $2.46 > 1.67$ and the value of p-value EPS $0.0173 < 0.05$, then H_0 was rejected and H_a was accepted. With 95% confidence level, it can be concluded that statistically **variable EPS affects the variable MVE.**

EQPS to MVE: it was known that the value of t arithmetic is EQPS $1.14 < 1.67$ and the value of p-value EQPS is $0.2594 > 0.05$, then H_0 was accepted and H_a was rejected. With 95% confidence level, it can be concluded that statistically **variable EQPS has no effect impact on variable MVE.**

PPS to MVE: it was known that the value of t arithmetic PPS $6.58 > 1.67$ and value p-value PPS is $0.000 < 0.05$, then H_0 was rejected and H_a was accepted. With 95% confidence level, it can be concluded that statistically **variable PPS affects the variable MVE.**

1. **Simultaneous impacts.** To perform hypothesis testing simultaneously, the parameter value of F was used. Therefore, to know if the variables "EPS", "EQPS", and "PPS" simultaneously affect the variable "MVE", it can be done by comparing the value of F Count with F table with the following conditions
 1. If F arithmetic is $>$ F table, then H_0 is rejected and H_a is accepted.
 2. If F arithmetic is $<$ F table, then H_0 is accepted and H_a is rejected.

Based on Eviews analysis result above, with 5% significance level, it was known that F value count was $15.56 > F$ value table 2.69. Thus, since F arithmetic was higher than F table, it can be statistically interpreted that **variables EPS, EQPS and PPS simultaneously affect the variable MVE.**

- 2. The Interpretation of the model.** Interpretations of the model coefficients of regression equations include "sign" and "value". The sign indicates the direction of the relationship, which can be positive or negative. A positive sign indicates a one-way effect, meaning that if the independent variable increases, then the dependent variable will increase as well. Conversely, if the independent variable decreases, the dependent variable will decrease as well. The negative sign indicates a counter-effect, meaning that if the independent variable decreases, the dependent variable will increase. Conversely, if the independent variable increases, then the dependent variable will decrease. Meanwhile, "value" denotes the slope of the regression equation. From the mathematical model of structural equation (5) above by considering the result of Eviews analysis, we get the MVE regression equation model as follows:

$$y_2 : \beta_0 + \beta_{21} X_{21} + \beta_{22} X_{22} + \beta_{23} X_{23} + \varepsilon_2$$

$$\text{MVE} : 21.01 - 0.21 \text{ EPS} + 0.09 \text{ EQPS} + 1.06 \text{ PPS}$$

The interpretation of the above "MVE" regression equation is statistically as follows:

1. If the value of EPS, EQPS, and PPS variables is constant (0) then the value of the MVE variable is 21.01.
2. If the EPS increases 1 unit, and another variable remains, then the MVE will decrease by 0.21 units; or an increase of 1% EPS, will decrease the MVE by 0.21%.
3. If EQPS increases 1 unit, and another variable remains, then MVE will increase by 0.09 units; or a 1% increase in EQPS, will raise the MVE by 0.09%.
4. If the PPS increases by 1 unit, and another variable remains, then the MVE will increase by 1.06 units; Or a 1% increase in PPS, will raise the MVE by 1.06%.

d. Comparative analysis before and after the application of IFRS

In addition to performing model test, the researchers also performed comparisons between several parameters before and after IFRS convergence. In this case, corporate value and equity values increased after IFRS while EPS and PPS decreased.

Table 13. Summary of Parameter Interpretation of Research Results

No	Statistik / Variabel	Sebelum IFRS			Setelah IFRS		
		Kelayakan	Nilai	Interpretasi	Kelayakan	Nilai	Interpretasi
1	MVE	$p \text{ value (sig.)} > 0,05$	$0,12 > 0,05$	Tidak ada perbedaan	$p \text{ value (sig.)} > 0,05$	$0,12 > 0,05$	Tidak ada perbedaan
2	EPS	$p \text{ value (sig.)} > 0,05$	$0,83 > 0,05$	Tidak ada perbedaan	$p \text{ value (sig.)} > 0,05$	$0,83 > 0,05$	Tidak ada perbedaan
3	EQPS	$p \text{ value (sig.)} > 0,05$	$0,09 > 0,05$	Tidak ada perbedaan	$p \text{ value (sig.)} > 0,05$	$0,09 > 0,05$	Tidak ada perbedaan
4	PPS	$p \text{ value (sig.)} > 0,05$	$0,27 > 0,05$	Tidak ada perbedaan	$p \text{ value (sig.)} > 0,05$	$0,27 > 0,05$	Tidak ada perbedaan
5	EPS terhadap MVE	$p \text{ value (sig.)} > 0,05$	$2,2723 > 0,05$	Tidak berpengaruh	$p \text{ value (sig.)} \leq 0,05$	$0,0173 < 0,05$	Berpengaruh
6	EQPS terhadap MVE	$p \text{ value (sig.)} \leq 0,05$	$0,0000 < 0,05$	Berpengaruh	$p \text{ value (sig.)} > 0,05$	$0,2594 > 0,05$	Tidak berpengaruh
7	PPS terhadap MVE	$p \text{ value (sig.)} \leq 0,05$	$0,0000 < 0,05$	Berpengaruh	$p \text{ value (sig.)} \leq 0,05$	$0,0000 < 0,05$	Berpengaruh
8	Uji Simultan (F-stat)	F hitung > F tabel	$25,91 > 2,69$	Berpengaruh	F hitung > F tabel	$15,56 > 2,69$	Berpengaruh
9	Coefficient C	Positif (+)	18,18	Var independen mempengaruhi var dependen secara positif	Positif (+)	21,01	Var independen mempengaruhi var dependen secara positif
10	Probability C		0,0000	Semakin mendekati 0 semakin besar peluang menolak H_0		0,0000	Semakin mendekati 0 semakin besar peluang menolak H_0
11	R-squared (R^2)		0,60	60% variasi var Y dapat dijelaskan dengan menggunakan var X		0,48	48% variasi var Y dapat dijelaskan dengan menggunakan var X
12	Standard Error of Regression (S.E)	$1,37 < 1,49$	1,37	Deviasi standar model regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS	$1,37 < 1,49$	1,49	Deviasi standar model regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS
13	Sum squared resid (SSR)	$95,07 < 111,95$	95,07	Variasi yang tidak dapat dijelaskan dari var Y pada garis regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS	$95,07 < 111,95$	111,95	Variasi yang tidak dapat dijelaskan dari var Y pada garis regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS
14	Log Likelihood Function (LLF)	$-91,89 > -95,30$	-91,89	Estimasi koefisien regresi β sebelum IFRS lebih baik dibandingkan sesudah IFRS	$-91,89 > -95,30$	-95,30	Estimasi koefisien regresi β sebelum IFRS lebih baik dibandingkan sesudah IFRS
15	F Probabilitas	F Prob < 0,05	0,00	Model persamaan regresi sudah benar	F Prob < 0,05	0,00	Model persamaan regresi sudah benar
16	Akaike's Information Criterion (AIC)	$3,55 < 3,71$	3,55	Kecocokan Model regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS	$3,55 < 3,71$	3,71	Kecocokan Model regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS
17	Schwarz Information Criterion (SIC)	$3,69 < 3,86$	3,69	Kecocokan Model regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS	$3,69 < 3,86$	3,86	Kecocokan Model regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS
18	Hannan-Quinn criter	$3,60 < 3,77$	3,60	Kecocokan Model regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS	$3,60 < 3,77$	3,77	Kecocokan Model regresi sebelum IFRS lebih baik dibandingkan sesudah IFRS

IV. Conclusion

In this research, some conclusions related to the test result and hypothesis testing are that variable EPS had an impact on MVE only after IFRS implementation, whereas before the implementation of IFRS, variable EPS had no impact on MVE. Similarly, variable EQPS had an impact on the MVE just prior to the implementation of IFRS, whereas after the implementation of IFRS, variable EPS had no effect on MVE. Variable PPS affected the MVE both before and after the implementation of IFRS. However, variables EPS, EQPS and PPS simultaneously affected the MVE variable, both before and after the implementation of IFRS. In general, variables EPS, EQPS and PPS variables ositively affected variable MVE both before and after the implementation of IFRS (positive coefficient). The suitability of the regression equation model was better before the IFRS implementation compared to it was after the implementation of IFRS (AIC, SIC test and Hannan-Quinn criter). Limitations in this study are limited to the trade sector of goods and services as well as the limited timeframe of observation only one before and one year after. Therefore, this research needs to be developed by adding other sectors with more data. In addition, this research needs to be developed by involving longer time span / observation period

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