

Value Relevance of Accounting Information: Evidence from Banking Industry in ASEAN

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Abstract

Previous research on the value relevance of accounting information and stock prices had different results. The differences in the results of this study indicate that further studies on the value relevance of accounting information and stock prices are still needed. This study investigates the relationship between the capital markets and accounting information in the banking sector of ASEAN countries, namely Indonesia, Malaysia, Singapore, Thailand and the Philippines. Specifically, this study looks at the relationship between earnings per share (EPS) and book value per share (BVPS) on the balance sheet value. Using a sample of listed banks from 2017 to 2019, this study documents accounting information in the context of emerging markets by using stock prices as the dependent variable three months after the end of the year is taken into consideration. The sample determination method for this study used a dedicated sampling method to obtain 82 samples that met the criteria. This study uses a panel data regression technique. The results of this study show that earnings and book value have a statistically positive impact on stock prices. This study also shows that revenue is more related to value than other variables.

Keywords: *asean banking industry; book value per share; earnings per share; value relevance*

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INTRODUCTION

An entity's presentation of financial statements must be based on accounting and financial reporting requirements. This presentation is made in a way that the information presented may be useful to users of the financial statements in making decisions. For accounting information to be useful for decision-making, two main qualities must be met: relevance and reliability. Information is said to be reliable or reliable if the information represents the actual information and conditions. A value relevance test of a combination of relevance and reliability so that information that is said to have value relevance is relevant and reliable (Barth et al., 2001)

It suggests that the value relevance of accounting information is a concept that discusses various meanings and measures related to accounting. Accounting information is predicted to have value relevance because accounting information is statistically related to

stock market value. A financial report contains information if the publication of the financial report causes a market reaction, namely the reaction of investors to re-evaluate their investment strategy, which in turn will impact stock prices. The higher the value relevance of financial statements, the more reliable they are in making investment decisions (Lam et al., 2013).

Since the studies of Ball & Brown (1968) and Beaver (1968), many initial value fit studies have focused on the benefit fit in terms of value and have been conducted in developed countries, and have shown that income is relevant in helping investors make investment decisions (Beaver et al., 1979; Patell & Wolfson, 1984; Collins & Kothari, 1989; Lev, 1989; and Easton & Harris, 1991). In the 1990s, Feltham & Ohlson (1995) redefined the appropriate focus of value relevance research by providing some structure to the accounting by linking earnings and book value of equity (BVE) with the value of the business.

Information on earnings, book value, and cash flow provide a basis for investors in making decisions. Investors will respond positively to information by buying the company's securities. Otherwise, they will relinquish ownership when a bad signal about the company appears. Several studies show that book value and earnings are essential informational content in stock valuation (Ohlson, 1995; and Feltham & Ohlson, 1995).

Ball & Brown (1968) confirmed that there is valuable information contained in the notes to accounting income, which causes stock prices to adjust shortly before the disclosure (in line with efficient market theory) in response to changes in firms' reported trading profits. Ball et al. (2000) provide strong evidence for how the total change in stock price can be related to the degree of change in a firm's value as earnings change.

The main parameter that is widely used by investors from financial statements in assessing company performance is information about earnings, so profit is an element that is often associated with value relevance. Profit is said to have value relevance if it is statistically related to stock prices, namely a decrease or increase in stock prices. This is in accordance with the study's results, which found that profit had a positive and significant effect on stock prices (Jamaluddin et al., 2009); (Collins et al., 1997). However, different results are shown by research conducted. The study that at certain times, earnings no longer have value relevance, especially when the company is experiencing financial difficulties, so information on book value and equity can be used to assess the company. It is also found that earnings positively but not significantly affect stock prices.

In contrast, different results found that earnings have a negative relationship with stock prices. In addition to earnings information, the book value of equity is also an important element that is often associated with value relevance. The book value of equity is seen as having value relevance because of its role as adaptation value and rejection value (Burgstahler & Dichev, 1997). Furthermore, Collins et al. (1997) and Kwon (2009) also found that the book value of equity has a higher value relevance to stock prices than the value of earnings, especially when the company experiences negative earnings levels. In line with the results of this study, several studies linking book value and stock prices were carried out by Jamaluddin et al. (2009), Karunarathne & Rajapakse (2010), and Kwon (2009) found that book value proved to have a positive and significant relationship with stock prices. However, Omokhudu & Ibadin (2015) found that book value per share has no effect on stock prices.

In emerging markets and economies in transition, studies on the value relevance of accounting information have also been carried out, for example, in Ghana (Badu & Appiah, 2018); China (Rahman & Liu, 2021); Nigeria (Davies & Macfubara, 2018); in Greece (Kalantonis et al., 2020); in Vietnam (Hung et al., 2018); in Malaysia (Maigoshi et al., 2018); (Mirza et al., 2019); in Iran (Abdollahi et al., 2020); in Romania (Huian et al., 2018); in Egypt (Mostafa, 2016); in Tunisia (Ahmadi & Bouri, 2018); in Kuwait (Alfraih, 2017); in Qatar (Almujamed & Alfraih, 2019); and in India (Bhatia & Mulenga, 2019). Regarding the research object, specifically banks, some researchers have tried to analyze the relevance of the value of accounting information. Ahmadi & Bouri (2018) assess the field of the accounting value relevance of book value and earnings in share prices of banks and financial institutions listed in the Tunisian stock exchange and found that earnings and book value are statistically associated with firm value. Also, using these variables together is positively related to the firm stock price share. Burke & Wieland (2017) using data from 2004 to 2014, found evidence that bank operating cash flows and book value per share is positively related to stock prices. Bhatia & Mulenga (2019) Used private and public banks in India and found that EPS and BVPS, individually or collectively, are positively and significantly related to stock prices. These studies were conducted within the territory of a single country and did not consider the impact of information value relevance in a larger region, such as ASEAN.

ASEAN (Association of South East Asian Nations) is a regional organization with the cooperation of 10 (ten) Southeast Asia countries: Indonesia, Malaysia, Philippines, Thailand, Singapore, Vietnam, Myanmar, Brunei Darussalam, Laos, and Cambodia. ASEAN's primary goal is to make the Southeast Asia region a safe region. One form of integration of ASEAN countries to achieve regional economic stability and security in ASEAN is the existence of the ASEAN Economic Community (AEC). AEC's objectives are to grow the region's competitiveness globally, sell financial growth, reduce poverty and enhance the residing requirements of the ASEAN community. One of the influential sectors in the AEC is the banking sector because banking is a sector that acts as an intermediary for financial institutions and is needed for the smooth performance of the company. This sector has a significant role in driving the real sector. Unstable banking conditions can have a negative impact on a country's economy.

An accounting value fit study in the ASEAN banking sector was conducted to determine the relevance of the accounting value of earnings (EPS) and book value (BVPS) fit in the ASEAN region. These countries are Indonesia, Malaysia, Philippines, Singapore, and Thailand. The main focus of the study on these five countries is based on the fact that the ASEAN Financial Integration Framework (AFIF) will be implemented first in these countries before being fully implemented throughout the ASEAN region. This study also contributes by showing empirical results regarding the relationship between the value relevance of accounting information to stock prices in the banking industry in ASEAN, so these results can be a reference for investors to increase their confidence in investment decisions in the future.

Based on the above background, the formulation of the research problem is as follows: Does the value relevance of accounting information relevant to the financial statements of ASEAN banking companies? The formulation of this problem can be divided into 2 (two) parts, first "Does ASEAN Banking Company's Earning Per Share (EPS) have a positive

impact on stock prices?" and secondly "Does the book value per share (BVPS) of an ASEAN banking company have a positive effect on the stock price?".

RESEARCH METHOD

This study uses a quantitative research model with hypothesis testing using a regression model with secondary data. The secondary data used is sourced from the annual reports of each bank and obtained through the websites of each issuer. Meanwhile, stock prices are obtained from the finance.yahoo.com page. The stock price used in this study is the stock price three months after the end of the fiscal year so that investors can obtain and absorb accounting information (Tsalavoutas et al., 2012). The sampling method was performed using a targeted sampling method of 82 banks listed on the stock exchanges of each country from 2017-2020. The criteria used in this study are shown in Table 1.

Table 1. Sample Selection

No	Criteria	IDX	MYX	PSE	SGX	SET
1	Banks listed on the Stock Exchange	46	11	18	5	11
2	Banks that fall into the category of Islamic banks	4	2	-	-	-
3	Inaccessible bank	-	-	3	-	-
Amount		42	9	15	5	11
Final number of samples				82		

Sources: IDX, MYX, PSE, SGX, SET

The accounting information relevance rating model for this study uses the rating model that was widely used in previous studies. The valuation model is based on the (Feltham & Ohlson, 1995) model, and the goodwill of this model is expressed in stock prices. Stock prices are influenced by and multiplied by the book value of the stock, corporate profits, and other information.

In addition, this study will create a regression model for each group according to the hypothesis to be tested with a regression model similar to (Ahmadi & Bouri, 2018) as follows:

$$P_{it} = \alpha_0 + \beta_1 EPS_{it} + \beta_2 BVPS_{it} + \beta_3 GDP_{it} + \beta_4 Age_{it} + \beta_5 Size_{it} + \beta_6 DER_{it} + \varepsilon_{it}$$

Where:

- P_{it} : The share price per share of company i in the last three months after year t.
- EPS_{it} : Earnings per share of company i during year t.
- $BVPS_{it}$: Book value per share of company i at the end of year t.
- GDP_{it} : Value of Gross Domestic Product (GDP) of each country.
- Age_{it} : Company age.
- $Size_{it}$: The size of a company is measured by *log of total assets*.
- DER_{it} : *Debt to Equity Ratio* is measured by dividing total liabilities by equity.
- ε_{it} : Residual error.

RESULTS AND DISCUSSION

Descriptive statistics

Descriptive statistics of the results are shown in Table 2 with a total sample size of 328 for four years of observation starting from 2017 to 2020. Based on Table 2, it can be seen that the average stock price variable (HS) is 46875.31 and the standard deviation value is 476627.6. The standard deviation of the stock price is above the average. In other words, this stock price variable has a lot of data fluctuations. Variables Earnings Per Share (EPS), Book Value Per Share (BVPS), Gross Domestic Product (GDP), and Debt To Equity Ratio

(DER) also have standard deviations above the mean, so the four variables also show a high degree of data variance. Meanwhile, the standard deviations of the age and size are below the mean. This shows that there is little variability in the information about control variables

Table 2. Descriptive Statistical Results

Variable	HS	EPS	BVPS	GDP (in million)	age	Size	DER
Mean	46875.31	60.73942	21169.40	7.34	50,77	27.68	4.58
Maximum	5000000.00	1,159.00	2,316,203.00	1,120	169.00	28.13	4.37
Minimum	0.00	-100.00	1.06	319	6.00	0.00	0.00
Std. Dev.	476627.6	159.88	213941.00	338	26.94	4.32	5.78
Observations	328	328	328	328	328	328	328

Source: Data processed, 2022

Analysis and Discussion

Table 3 shows the results of panel data using a fixed effects model. The coefficient of determination test in the table shows that the F-statistic value is significant at the 5% and 10% levels, indicating that the independent variable tested affects the stock price. Meanwhile, the F-statistic values for the control variables each show 0.03143 for the GDP variable, 0.6709 for age, 0.9485 for size, and 0.1343 for DER. This value shows that only the GDP variable is significant in the control variable, while the other variables, age, size, and DER, have non-significant values.

Furthermore, the value of R-squared and Adjusted R-squared on the tested independent variables shows a high value, indicating that the tested independent variables have a relatively large influence on stock prices. Regression results also show that EPS and book value (BVPS) independent variables have a significant and significant impact on stock valuations in the ASEAN banking sector. These results also show that ASEAN bank earnings (EPS) and book value per share (BVPS) have the power of information that can influence investors' investment decisions.

Table 3. Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPS	180.5790	184.0561	-0.981108	0.03273**
BVPS	0.019278	0.125226	-0.153946	0.0877***
GDP	1.31E-07	1.30E-07	1.007810	0.03143**
AGE	-465.7596	1095.184	-0.425280	0.6709
SIZE	-673.9962	10424.41	-0.064656	0.9485
DER	7256.902	4834.543	1.501052	0.1343
C	-29083.65	220617.3	-0.131829	0.8952
<i>R-squared</i>	0.821723	0.821723	0.821723	0.821723
<i>Adjusted R-squared</i>	0.833437	0.833437	0.833437	0.833437
<i>F-statistics</i>	1.187961	1.187961	1.187961	1.187961
<i>Prob(F-statistic)</i>	0.000000	0.000000	0.000000	0.000000

,*Signification at 5%, and 10% levels

Source: Data processed, 2022

The content of the results information may signal the development of the company. Investors will be interested in investing in a company, as a profitable company indicates that the manager is running the company well. The value of earnings per share is an indicator often used to measure the level of management efficiency because it contains information useful for predicting future stock prices. In addition, it is also a reflection of the net capital contribution, which provides useful information in increasing the company's equity value. So if the actual profit announced exceeds the previously expected profit, this will be considered good news, and this will encourage investors to revise their beliefs by buying shares in companies that announce high earnings per share values. The announcement of the high value of earnings per share will cause an increase in closing stock prices; this is in line with research (Omokhudu & Ibadin, 2015).

The positive and significant influence of BVPS on stock prices also supports previous studies (Ahmadi & Bouri, 2018) and (Bhatia & Mulenga, 2019). The effects of this observation are steady with the expected speculation with a significance level of 10%, so those effects offer a guide for the hypothesis. This locating suggests that traders, in making funding choices, consider the company's capacity to function constantly, which may be visible from its book value. Book value per share describes the net economic value of each stock.

CONCLUSION

This study examines the relevance of the price of facts in economic statements, which encompass income according to earnings per share (EPS) and the book value of equity per share (BVPS) withinside the banking sector in ASEAN. Value fit is demonstrated by the effects of EPS and BVPS on stock prices. In addition, this study also included control variables in the form of GDP, age, size, and DER, showing that of the five control variables, only the GDP variable had a significant effect on stock prices.

The limitation of this study is that the sample selection was limited to five countries representing the entire ASEAN region and conventional banks. The selection of these five countries is based on the fact that the ASEAN Financial Integration Framework (AFIF) will first be applied to these countries before applying to the rest of the region. However, the sample selection, which was limited to these five countries, Indonesia, Malaysia, Singapore, Thailand, and the Philippines, was done with specific considerations to minimize bias. Suggesting further research, the researchers could take a complete sample within the ASEAN region so that the results obtained could reflect a complete picture. The implication of this study's results is that the ASEAN region's banking sector needs to increase the relevance of information value in its financial statements, specifically EPS and BVPS, to attract the attention of investors to invest in the company's shares.

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