



Accounting standards and the value relevance of financial statements

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ABSTRACT

Using the data of 68 Malaysian listed firms, this study attempts to examine the relationship between accounting standards and the value relevance of financial statements. It also explores the difference in accounting treatment between accruals accounting and cash accounting, and evidence of supplies. This process confirmed that accruals accounting provided a more transparent picture of accounting information when compared with cash accounting aspect. Our findings are quite consistent with our hypothesis which clearly states that in economies wherein strong and secure protection mechanisms for shareholders exist, tend to apply the use of accruals accounting with confidence, assuming that the value relevance of accounting information would not be compromised at any stage.

Contribution/ Originality

Taking 680 observations of 68 Malaysian listed firms the objective of this study is to investigate the effects on value relevance, incurred and arising from the influence of accounting standards in an environment wherein strong and secure protection mechanisms for shareholders exist.

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1. INTRODUCTION

Researchers and standard accounting setters believe that financial statements are prepared to assist the investors in their decision-making processes, whereas the accounting reports are based on accounting information which enables the investors to evaluate the stock value (Jeroh, 2016). The value relevance could be the result of the accounting numbers presented in the reports (developed under the conceptual framework of accounting standards) and the market value of the stock. Of course, there are different regression models that define the relationship between the accounting numbers (based on accounting standards) and market value of the stock. As such, these regression models have been applied in numerous studies by using the accounting information and the stock's market value to explore and evaluate the value relevance of accounting numbers.

The main objective of this study is to identify the significant relationship between clearer transparency of accounting numbers and the relevance of their application in financial statements to protect the interests of shareholders at different levels. However, Accruals accounting is used as a proxy for accounting standards herein. This issue is very critical and of vital importance for those shareholders who are not well literate in financial know-hows and are therefore incapable of appreciating the proper attention and precise directions, as suggested by accounting standards. Moreover, it is generally accepted that accruals accounting treatments are more difficult to comprehend when compared with cash accounting and therefore, understanding of concepts like the value relevance of financial statements transform cash flows into earnings, are discouraged in such jurisdictions.

Manganaris *et al.* (2016) rightly explained that strong and secure protection of shareholders is the responsibility of the regulatory bodies through the development of strong corporate governance structures, which effectively improves the practice of accrual accountings. Such statement clearly and interestingly suggests that protection of shareholders should be the overriding priority, when considering the development and implementation of accruals accounting standards. According to the matching and parallel principle, accruals accounting provides a clearer picture of revenues and expenses, when compared with cash accounting, which obviously results in the provision of more value relevant accounting information. However, accruals accounting is also less value relevant in some instances, because it provides more realistic opportunities for selfish and corrupt managers to manipulate accounting transactions for their own personal benefits.

Sadiq *et al.* (2019) and Sadiq and Othman (2017) argued that in countries where shareholders protection mechanisms are weaker and below standards, managers are inclined to behave more efficiently and effectively, whilst looking out for opportunities to obtain personal benefits. As the use of accruals accounting increases over time, it will provide more opportunities for managers to indulge in speculative accounting activities. Such activities provide negative impact on the value relevance of accounting information and lead towards weakening the protection of shareholders. In other words, strong protection mechanisms for shareholder will not permit managers to manipulate accounting numbers, and hence, would create a positive impact on the stock market.

The accruals accounting depends on discretionary accruals, which is another mode of accruals. The discretionary accruals model has been criticized for being incomplete, because it categorizes misclassified expected accruals as unexpected accruals. Sadiq *et al.* (2019) argued that research studies should not rely solely on discretionary accruals model, because it possesses an element of overstated and understated values that are useful in earnings management. Similarly, McNichols and Stubben (2018) illustrated that discretionary accruals model usually generated tests of low power for earnings management, which is considered to be economically feasible.

It is widely reported that Malaysia is among the highest growth rates for secure protection of shareholders' wealth in the entire Asia-Pacific region. Over the period from 1965 to 2010, the growth in secure protection levels for Malaysian shareholders has been extremely high in

comparison with Western countries. Consequently, we concluded three fundamental findings in this study with regards to the presentation of financial reporting and taxation regimes. Firstly, the magnitude of accruals accounting use is positively related to the degree of protection for shareholders. In other words, use of accruals accounting works positively in an environment where the level of protection of shareholders is quite high and conversely, where the level of protection of shareholders is weaker. Secondly, the value relevance of earnings is negatively impacted in jurisdictions wherein weaker protection mechanisms exist for shareholders. Hence the increased use of accruals accounting in these jurisdictions is discouraged to quite an extreme extent. Finally, the value relevance of earnings is not affected by accruals accounting in jurisdictions where strong protection mechanisms exist among shareholders. It is worth noting that all three fundamentals are currently found in the Malaysian business market, since Malaysia has vastly concentrated on the protection mechanisms for shareholders, which in turn, enables Malaysian companies to enhance the value relevance of financial statements.

2. LITERATURE REVIEW

Accounting information is very important in the development of firms as both domestic and international investors depend on the accounting information provided by companies. Hence the importance of accounting information being prepared and disclosed in accordance with the requirements of generally recognized accounting standards. The concept of value relevance is derived from the market and is built on accounting information that defines the degree of change in stock values. Value relevance can be examined by comparing the operationalize criteria of relevance with the reliability of information as measured by the standard setters (Barth *et al.*, 2016).

Our study contributes to the existing value relevance of earnings literature in two ways:

1. Firstly, in finding companies that have converged into using accruals accounting systems consistently and comparing the value relevance of the current accrual accounting systems with the data from the earlier cash flow systems (Leal *et al.*, 2017), then comparing the value relevance of earnings obtained from different companies using the accruals system.
2. Previous researchers have examined the specific factors of earnings from value relevance of accounting information (Shan *et al.*, 2015). This study will add to the existing literature by looking additionally at the impact of shareholder's protection taken together with the aspects of accruals accounting and the value relevance of accounting numbers.

Value relevance and reliability are generally examined using the same test. Although the results point to the reliability and relevance of accounting numbers, the tests applied do not state the extent to which the values are reliable and relevant. At some point it is difficult to pinpoint the causes which reduce the reliability and relevance of financial information. Moreover, it is not easy to test the reliability and relevance separately because the source of information is common.

Value relevance refers to the strength of the relationship between market value of securities and accounting information related to a specific firm. The sensitivity of value relevance is denoted by R^2 in the regression analysis. Timeliness is another critical element of financial information which is also derived from the regression results. This concept is built on the timely availability of information. Timely information can help investors make optimum decisions before they lose the value relevance of financial information.

- There are various regression models which were developed purely to explain the relationship between accounting numbers and market value. These models were used in different studies to identify the value relevance of financial statements. The analysis of these models was done by using the data from accounting information and market information to identify the value relevance of accounting numbers (Gonçalves *et al.*, 2017). However, this study finds three different approaches to classifying the adoption of value relevance:

- The first technique is known as relative association studies in which value relevance would be checked by comparing the market value of stock with an alternative bottom line measure. Using this method, we first find the association of accounting numbers by utilizing the current accounting standards with market value and comparing it with the accounting numbers achieved by using the proposed accounting standard. The value relevance of accounting numbers is usually measured by the difference in R^2 or the differences in the regression results of bottom line accounting numbers. The degree of value relevance of accounting numbers would be determined by the greater value of R^2 .
- The second technique is known as incremental association which investigates the usefulness of accounting numbers to identify whether it can explain the values and earnings in the presence of all other variables. The estimated coefficients of accounting numbers are valuable if it is significantly different from zero. Previously the incremental association was thoroughly examined in several studies using of fair value of off-balance sheet items.

The final technique is known as marginal information content studies which evaluate the effect on stock value arising from the disclosure of accounting numbers. Event study methodology is the technique adopted by researchers to identify the degree of change appearing after the release of accounting information on the prior value of the stock. In simple terms, the reaction of stock prices arising from the disclosure of accounting information is known as marginal information content studies. Here, the resulting change in the stock price would be evidence of value relevance.

It is expected that accruals accounting systems will generate more value relevant accounting numbers than cash accounting systems. The performance measures of accruals accounting provide a much clearer picture of events when compared to cash flow accounting systems. The underlying reason behind this is that it is based on the matching principle in which revenues and expenses are recognized in the same period in which they occur (Okafor *et al.*, 2016). Therefore, accruals accounting systems provide a more realistic financial report as compared to cash flow accounting systems which would therefore be helpful for investors to easily assess the performance and make their investment decisions.

Mostafa (2017) argue that the accruals accounting system provides opportunities for managers to manipulate accruals opportunistically. Managers can manipulate discretionary accruals in such a way that it would be beneficial for them. Since, managers are responsible to the discretionary accruals; they manipulate the accruals because their incentives are tied to firm performance (Sadiq *et al.*, 2019). Therefore, performance measures in accruals accounting systems are less value relevant.

In this study, it is also assumed that the price formulation for products across Malaysia would be uniform because it correlates with the protection of shareholders. Therefore, the improvement in earnings would be led by pricing strategy. In such scenarios where shareholder's protection is strong, firms must provide more private information related to finance, accounts, marketing and production. These disclosures also play the role of decreasing the value relevance of earnings in the financial statement. In jurisdictions where strong relationships exist, companies don't need to display the association between earnings and stock returns because earnings already lead price by a wider margin.

It has been found by researchers that when firms are involved in greater use of accruals accounting, the value relevance of accounting measures has offsetting effects. For instance, the accounting standards of the United States require that the pension cost must be recognized as accrued in the statement of financial position and charged to earnings when it is incurred. So, it is better to recognize the pension cost when incurred instead of when it is paid. This method of accounting better matches the revenue and expense rather than cash flows and thus provides more value relevant performance measures for the investors. However, managers may act in a biased manner and report the estimation of pension expense as either overstated or understated according to their need, in

order to prevent the firm from reporting negative earnings thus reducing the value relevance of performance measures for the investors.

However, it is assumed that economies where strong shareholder protection mechanisms exist will provide fewer opportunities for managers to manipulate accruals (Huang and Boateng, 2016). Conversely, economies where weak shareholder protection mechanisms exist provide more opportunities for managers to manipulate accruals. For instance, Malaysia has so many avenues for shareholders to legally sue the directors if they are not performing well or are associated with any fraudulent activity.

2.1. Hypothesis

It generally assumes that all accounting standards are different in nature. The reaction to value relevance can have different impacts on every accounting number, depending on the scope of the accounting standard. Firm performance cannot be easily identified since the intentions of managers are not clear. They could either be busy manipulating accruals or else making the optimal decisions for shareholders (Trejo *et al.*, 2016). Therefore, based on prior research and evidence, it will not be wrong to say that shareholders' confidence is not only affected by accounting standards, but it is primarily influenced by value relevance and the weaker shareholder protection mechanisms. Prior studies show empirical evidence related to value relevance with different accounting and reporting variables. This study uses accruals accounting to find the relationship between accounting standards and value relevance. Our hypothesis is based on the conviction that the intensive use of accruals accounting provides more opportunities for managers to get involved in earnings management and therefore leads towards weaker shareholders' protection. We propose that accruals accounting plays a negative role in the value relevance of firms especially where weaker shareholders' protection exists. Therefore, we hypothesize that:

H1: Value relevance of performance measures is negatively affected by the increasing use of accruals accounting in companies where weak shareholders' protection exists.

H2: Value relevance of performance measures is positively affected by the increasing use of accruals accounting in companies where strong shareholders' protection exists.

3. METHODOLOGY

3.1. Data and sample

In this study, we gather the data of accounting numbers from the non-financial companies listed on Bursa Malaysia during the financial period from 2008 to 2017. The sample of firms chosen for the study belongs to several non-financial business groups, listed on Bursa Malaysia namely, the construction sector, health care sector, hotel sector, properties sector, utilities sector, Plantation sector etc. This sample does not include the information of listed financial institutions because they are subjected to different regulatory bodies which are not similar to the criteria for non-financial companies. At the present time there are more than 900 companies listed on Bursa Malaysia. Our sample consists of 68 listed companies, excluding financial institutions and firms who haven't submitted a complete annual report as well as those firms with missing or incomplete data in respect of the variables chosen for our study in accordance with the practice in earlier studies. Ownership structure measures were derived from the data extracted from companies' financial statements. Moreover, we made sure that the sample data must fulfill four criteria. Firstly, there should be enough data to calculate the change in net profit (Δ NP), change in return on equity (Δ ROE) and returns (RTN). Secondly, the highest value and the lowest 1% value of each variable must not be part of the observation within the firm. Thirdly during the sample period, the fiscal year end can be amended. Fourthly, the accounting information included in the sample data must be prepared using accounting standards applicable in Malaysia.

Table 1: Industry wise distribution of sample

Industries	No. of Firms	Observation	Percentage
Construction	9	90	13.24
Health care	23	230	33.82
Hotel	6	60	8.82
Properties	14	140	20.58
Utility	7	70	10.29
Plantation	9	90	13.24
Total	68	680	100

3.2. Regression model

The relevant model used to test performance measures is as follows:

EQ 1: The link between accruals accounting and ROA

$$(NP)f = \alpha + \beta \log(\text{accruals_accounting})f \dots\dots\dots (1)$$

Equation 1 above represents the performance measure of value relevance. This equation is used to find the relationship of accruals accounting with NP (net profit), and alpha is constant.

EQ 2: The link between accruals accounting and ROE

$$(ROE)f = \alpha + \beta \log(\text{accruals_accounting})f \dots\dots\dots (2)$$

Equation 2 above represents the second measure of value relevance. This equation is used to find the relationship of accruals accounting with ROE, and alpha is constant.

EQ 3: The link between accruals accounting and returns

$$(RTN)f = \alpha + \beta \log(\text{accruals_accounting})f \dots\dots\dots (3)$$

Equation 3 above represents the third measure of value relevance. This equation is used to find the relationship of accruals accounting and returns, and alpha is constant.

3.3. Control variables

Prior research has identified other factors that also influence value relevance and show the financial position of the firm. These variables should be controlled in order to validate our descriptive results. Following prior studies (Zandi *et al.*, 2019; Sadiq *et al.*, 2019; Sadiq and Othman, 2017), SIZE GRWTH, DEBT, and BIG4 were employed as control variables in the regression.

- 1) SIZE refers to the company size as measured by the total assets of the company.
- 2) GRWTH refers to the growth opportunities of the company.
- 3) DEBT refers to the increase in debt of the company.
- 4) BIG4 also known as the auditor of the company is a dummy variable denoted as 1 if the company’s auditor is one of the big 4 firms, otherwise denoted as 0.

4. RESULTS

4.1. Descriptive Analysis

Table 2 below shows the descriptive analysis of accounting standards and value relevance. Overall the results are positive and support the notion that strong shareholder protection mechanisms improve the value relevance of accounting numbers. In the case of Malaysia, firms reporting practices are largely based on the accruals accounting system. The maximum value of accruals

accounting system is 83% and the mean value is 12.28%. All the measures of value relevance are positive values except the minimum value of net profit which is -0.83% and return (RTN) value which is -2.34%. The results of net profits are favorable as it has a maximum value of 23.6% and mean and median values which are near to or similar namely 7.02% and 7.28%. Return on equity has a maximum value of 26.31% whereas the mean and median values are 14.78% and 14.88% respectively. Overall the results of return on equity are greater than net profits in every regard. The return (RTN) is also a measure of performance but its results are not consistent with the other performance measures. The maximum value of RTN is 46.76% and the mean and median have values of 12.3% and 8.3% respectively. It carries the scattered results but still has the highest maximum value. Control variables have positive results and appear to promote the use of the accruals accounting system in Malaysia.

Table 2: Descriptive analysis

Variables	Mean	Median	Std. Dev	Min	Max
Accruals Accounting	12.28	4.2	53.2	0.23	83.21
NP	7.02	7.28	11.29	-0.83	23.6
ROE	14.78	14.88	17.69	2.34	26.31
RTN	12.23	8.3	56.76	-2.34	46.76
SIZE	19.9	26.2	21.6	6.43	58.9
GRWTH	9.3	6.9	30.4	-25.37	46.84
DEBT	5.89	8.27	12.78	5.67	62.3
BIG4	62.7	100	48.7	0	100

4.2. Correlation analysis

Table 3 carries the results of the correlation analysis. All the correlation results are positive except the relationship of accruals accounting and opportunity for growth which is both negative and significant with a value of -0.38. Accruals accounting and net profit has a positive relationship and is also significant with a value of 0.56. Other value relevance measures also have a positive relationship with accruals accounting. The GRWTH variable has a negative relationship with accruals accounting and is significant with a value of -0.38 which apparently means that accruals accounting does not provide opportunities for growth in different sectors. Net profit has a positive relationship with all the variables especially with the other two variables of value relevance that is ROE and RTN. Moreover, it is also significant with values of 0.51 and 0.33 respectively.

Table 3: Correlation analysis

Variables	Accrual Accounting	NP	ROE	RTN	SIZE	GRWTH	DEBT
Accrual Accounting	1						
NP	0.56**	1					
ROE	0.21	0.51**	1				
RTN	0.43***	0.33*	0.22	1			
SIZE	0.62	0.51	0.98	0.51	1		
GRWTH	-0.38*	0.56	0.1	0.13	0.15	1	
DEBT	0.51	0.21	0.51	57	0.59	0.64	1

** Significant at the 5% level, *** significant at the 1% level

4.3. Regression analysis

Table 4 presents the results of the least square regression analysis for the testing of our hypotheses. The measure of value relevance has been considered as the dependent variable, whereas the remaining factors have been included as independent variables.

Table 4: Regression analysis

Variables	NP		ROE		RTN	
Intercept	0.81	<0.01	0.6	<0.01	0.96	<0.01
Accrual accounting	0.66	0.16	0.82	0.14	0.93	0.02
SIZE	0.26	0.05	0.23	0.01	0.82	0.14
GRWTH	0.66	0.16	0.3	0.39	0.55	0.19
DEBT	-0.05	0.48	-0.03	0.67	-0.07	0.4
Adj R ²	0.39		0.46		0.52	

In Table 4, the regression results of accounting standards and value relevance have been clearly depicted, representing that the overall results are positive and reflect quite a favorable stance for our hypothesis. The intercepts are apparently high in all measures of value relevance, whereas the coefficients of accruals accounting are also positive at all levels within the measure of the value relevance. This implies to indicate that financial statements of Malaysian firms carry a strong element of value relevance accounting information, attributed to the strong and severe protection mechanisms for the shareholders, provided by the government. All the independent variables have a strong and positive relationship, with the exception of the DEBT variable which shows a negative relationship. This implies that accruals accounting does not support the idea of increasing debt with the help of accruals accounting system.

5. CONCLUSION

The main purpose of this study was to investigate the effects on value relevance, incurred and arising from the influence of accounting standards in an environment wherein strong and secure protection mechanisms for shareholders exist. The accruals accounting had been used as the careful handling of accounting directives, in order to explore the value relevance of accounting information in the financial statements. Three measures of performance, namely, net profit, return on equity and returns for this purpose were used to investigate the relationship between accruals accounting and the value relevance. We hypothesized those value relevance measures which are positively affected in an extremely widespread environment where the use of accruals accounting is adopted, within the existence of strong and secure protection mechanisms of shareholders. Our results fully supported the hypothesis and determined that the Malaysian regulators provided quite a strong and well-fortified protection structure for shareholder. Therefore, the financial information provided by Malaysian companies is inclined towards value relevance and intensely reliable aspects. Hence, the attraction of Malaysian stock exchange market, 'Bursa Malaysia', for both local and international investors, is obviously the source of interest and a magnetic feature, as well.

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