VALUE RELEVANCE OF BOOK VALUE AND EARNINGS: A COMPARISON BETWEEN ISLAMIC AND CONVENTIONAL BANKS IN MALAYSIA

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ABSTRACT

This study aimed at investigating the value relevance of book value and earnings of Malaysian Islamic and conventional banks. A market valuation approach was utilised for that purpose. The result of pool sample showed that book value and earnings of Malaysian banks are value relevant. It was also observed that book value and earnings of Islamic and conventional banks are value relevant when they are separated. However, it was found that the explanatory power towards market value provided by Islamic bank is far behind their conventional counterparts. The results implicated that book value and earnings of Islamic banks provide less information content towards market value despite their relevance. This suggests further investigation in future studies. Finally, the study contributes to existing literature in the area of the value relevance of financial information in Malaysia.

Keywords*: value relevance, financial information, Islamic bank, conventional bank, Malaysia*

INTRODUCTION

Malaysia practices a dual banking system where conventional and Islamic banking systems are operating side by side. Conventional banking system existed prior to independence, while Islamic banking system only started in 1983 through the introduction of Islamic Banking Act 1983. The first

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Islamic bank was incorporated in the same year with the intention to provide an alternative banking system for those who want to live their financial life in a more Islamic way and in accordance to the teachings of Islam.

Since then, Islamic banking has gone through a tremendous growth evidenced by the opening of Islamic banking windows by most of conventional banks in Malaysia. Later, most of the conventional banks opened their Islamic banks arms either by forming Islamic banking subsidiary or converting their whole operations into Islamic banks.

In terms of operations and reporting, all financial institutions in Malaysia need to comply with the requirements enforced by Banking and Financial Institution Act (BAFIA), Companies Act 1965 and International Financial Reporting Standards (IFRS). In addition, Islamic banks and financial institutions are also required to follow the requirement of Islamic Banking Act 1983 and be advised by Syariah Advisory Board to oversee the adherence to Islamic principles in their operations.

Muslims and non-Muslims are interested to know many things about Islamic banking (Dusuki & Abdullah, 2007; Abdullah, Sidek & Adnan, 2012). Their interests range from understanding the good and bad of compliance with Syariah based banking system (Dusuki & Abdullah, 2007; Abdullah, Sidek & Adnan, 2012), to the relevance of accounting information prepared and published by Islamic banking. It is true that studies on value relevance of accounting information has been exhaustive but the number of studies about the relevance of accounting information of Islamic banking is still very small. Only a few studies were available, for example Loghin and Seria (2014) and Masruki, Zakaria and Ibrahim (2012).

The first issue was addressed by Dusuki and Abdullah (2007) and Abdullah, Sidek and Adnan (2012), while current study addresses the second issue, that is the value relevance of financial information published by Islamic banks. Therefore, the purposes of this study are to investigate the value relevance of accounting information of banks and to compare the value relevance of Islamic and conventional banks. Current study has adopted a value relevance model by Ohlson (1995) that suggested accounting information should be represented by book value of equity and earnings.

LITERATURE REVIEW

Definition of Value Relevance

According to Barth, Beaver, and Landsman (2001), the term value relevance refers to the association between accounting amounts and security market values. Although literature examining such associations was started by Miller and Modigliani (1966) and Ball and Brown (1968), the first study that used the term "value relevance" to describe this association was Amir, Harris, and Venuti (1993). Ohlson (1999) and Barth Beaver, and Landsman (2001) provided formal definitions that were closely related to Amir, Haris and Veuti (1993). Beisland (2011) defined value relevance as the measure of usefulness of information from the perspectives of investors. The key consistency in their definitions is that an accounting amount is deemed value relevant if it has a significant association with security market value. The value relevance of accounting numbers are measured by their R^2 or adjusted R^2, as suggested by Barth Beaver and Landsman et al. (1998), Brown, Lo and Lys (1999), Collins, Maydew, and Weiss (1997), Wang (2005), Pirie and Smith (2008), Beisland (2011) and many other researchers. According to Ibrahim, Danila, Yusoff, and Yatim (2002) and Landsman (1986), an accounting number is value relevant if its correlation coefficient is significantly different from zero.

Going back to the association between accounting amounts and market values, a few measurements were used to represent market value. Among others, they are firm market value (MV), market price (P) and market return (R). Among the first studies that used R as a dependent variable was by Ball and Brown (1968) that associated market return and earnings. Landsman (1986) used MV as the dependent variable to represent market value. He associated MV with firm book value (NA). Ohlson (1995) used P as dependent variable and associated it with book value of equity and abnormal earnings.

Development and Use of Value Relevance Models

Value relevance concept originated in 1960's (Lee, 2001) but the term was formally used in capital market research in accounting in 1990's. Value relevance study is a study that associates share market measures such as

market return, market value and market price to accounting numbers such as earnings, book value, cash flow and dividend. It started with a study by Ball and Brown that was published in 1968. They found that firm earnings are able to predict market returns eleven months prior to its publication and continue to explain them up to six months after the publication.

Later a few models were developed to show the association between market measures and accounting numbers. Landsman (1986) developed an equity valuation model known as the balance sheet identity whereby book value of net assets was intended to be highly related to market value of firms. He tested the model and found a relationship between market value and book value of net asset. Kane and Unal (1990) developed an equity valuation model based on the balance sheet identity known as Statistical Market Value Accounting Model (SMVAM) that suggests the difference between market value and book value of net asset is caused by hidden reserves. (Note: Book value of net asset and book value of equity are the same and will be used interchangeably).

Ohlson (1995) developed another equity valuation model that associates market value of equity with book value of net asset and earnings. He found that the difference between market value and book value can be explained by earnings. Ohlson (1995) model became very popular and was tested by many researchers until today. This model is supported by various empirical tests that show book value and earnings are the strongest predictors of market value. Since then, book value and earnings became the centres of attraction by capital market researchers in predicting or explaining market value of firms (Kadri, 2009; Kadri, Ibrahim & Abdul Aziz, 2010).

Value Relevance of Banks

Despite many studies conducted to prove that book value and earnings are predictors of market value throughout the world, banking and financial institutions, generally and specifically Islamic financial institution, were left unstudied because of their distinct nature of business and reporting (Jamaluddin, Mastuki & Ahmad, 2009). Only a number of studies were done on value relevance of bank accounting numbers (Kane & Unal, 1990; Wang, 2005; Abuzayed, Molyneux & Al-Fayoumi, 2009).

Kane and Unal (1990) reported on their empirical investigation on structural and temporal variation in market's valuation of banking firms. They developed a model to capture the hidden reserves in US banking firms. According to the authors, hidden capital exists whenever the accounting measure of a firm's net worth diverges from its economic value. Their study developed a model to estimate the hidden capital and test hypotheses about their determinants. The model made direct use of accounting information on the bookable position of a firm and separates bookable from unbookable sources of value. Kane and Unal (1990) used regression analysis to partition the market value of a firm's stock into two components: recorded capital reserves and unrecorded (or hidden) net worth. According to them, hidden capital is, in turn, allocated between values through asset turnover or write-downs on a historical-cost balance sheet under GAAP or values on an off balance-sheet item.

Wang (2005) studied the value relevance of accounting measures of merged banks in Taiwan. He found that accounting measures could explain 50% of variations in the value of merged banks whereas non-accounting measures explained another 40% of the variations.

Abuzayed, Molyneux, and Al-Fayoumi (2009) studied the value relevance of bank efficiency in Jordanian Stock Exchange. Their study was motivated by a large gap between Jordanian Bank market value and book value. They believed that if banks wanted to succeed they should produce their output efficiently from inputs. For example, producing more outputs from the same amount of input as compared to competitors is a sign of efficiency. They found that bank efficiency provided incremental value relevance on top of earnings.

Other researchers who also studied value relevance of banks were Ittner and Larcker (1998), Barth, Beaver and Landsman (1996), Anandarajan, Francis, Hasan and John (2011) and Dimos (2011). Beaver and Landsman (1998) analysed 73 retail banks; Barth, Beaver and Landsman (1996) studied US banks; Anandarajan, Francis, Hasan and John (2011) studied banks from 38 countries; Dimos (2011) studied banks in Europe. These studies found book values and earnings of banks understudied are value relevant.

Value Relevance of Islamic Banking

The history of Islamic banking system existed in Malaysia in 1983 with the incorporation of Bank Islam Malaysia Berhad in that year. This leads to a dual banking system which compliments each other. Then many Islamic bank windows were opened and at present, almost all banks in Malaysia have their Islamic operations.

According to Dusuki and Abdullah (2007), Malaysian customers select Islamic banks because of their Islamic and financial reputation and quality service offered by the bank. Other factors that perceived to be important include good social responsibility practices, convenience and product price.

Prior studies showed that religiosity is positively associated with risk aversion (Miller & Hoffmann, 1995) and ethical behaviour (Longenecker, McKinney & Moore, 2004). All else being equal, these two correlates of religiosity are likely to deter managers from biasing fair value estimates. Following these two studies, Chourou (2013) tested the relationship between religiosity and firm value. She found that religiosity is associated with investors' pricing firm values.

Previous studies suggested that accounting numbers of banks are value relevant like other industries, even though their operations and reporting are different from other industries. So a question arises whether the investors and the market rely on the accounting information provided by Islamic banks like conventional banks and whether it is equivalent to their counterparts in conventional system. Hence, current study intends to investigate and compare the value relevance of book value and earnings of Malaysian Islamic and conventional banks.

RESEARCH DESIGN

Sample, Data Collection and Variable Selection

According to Bank Negara Malaysia (BNM) updated list of banks, there are 9 registered local commercial banks as of 27 January 2015 and 11 registered local Islamic banks as of 7 October 2015. They are as follows.

Table 1: List of Commercial and Islamic Banks in Malaysia in 2015

No.	Commercial Banks	No.	Islamic Banks
1.	Affin Bank Berhad	1.	Affin Islamic Bank Berhad
2.	Alliance Bank Berhad	2.	Alliance Islamic Bank Berhad
3.	AmBank (M) Berhad	3.	AmBank Islamic Berhad
4.	CIMB Bank Berhad	4.	Bank Islam Malaysia Berhad (S)
5.	HSBC Bank Malaysia Berhad	5.	Bank Muamalat Malaysia Berhad
6.	Hong Leong Bank Berhad	6.	CIMB Islamic Bank Berhad
7.	Malayan Banking Berhad (S)	7.	HSBC Amanah Malaysia Berhad
8.	Public Bank Berhad (S)	8.	Hong Leong Islamic Bank Berhad
9	RHB Bank Berhad (S)	9	Maybank Islamic Berhad
		10.	Public Islamic Bank Berhad
		11.	RHB Islamic Bank Berhad

Six local commercial banks and one Islamic bank were selected as samples of the study because they are listed under Bursa Malaysia and the data were available on Datastream.

The research is designed to fulfil the objectives of the study which is to investigate the value relevance of book value and earnings of Malaysian banks and make comparison between Islamic and conventional banks. So, appropriate data of the respective banks were collected from DataStream from 1998 to 2012. Based on previous studies (Landsman, 1986; Kane and Unal, 1990; Ohlson, 1995; Kadri, 2009; Kadri, Ibrahim & Abdul Aziz, 2009) information collected are Market Value (MV) which represent banks' market capitalisation, Book Value of equity which is also known as Net Asset (NA) and Earnings which is also known as Net Profit (NP) or Net Income.

Empirical Model of the Relevance of Fund Accounting towards Firm Valuation

Firms including banks are valued in many ways. The most common models in accounting are models suggested by Landsman (1986) and Ohlson (1995). Landsman (1986) suggested that a firm value is associated with its book value of net asset. In other words, net asset represents the firm value. The model can be illustrated as below:

$$MV_{it} = a + b_1 NA_{it} + e_{it} \qquad (1)$$

Where:

MV_{it} is market value of firm i at end of year t
NA_{it} is book value of net asset of firm i at end of year t
a is intercept
b is coefficient
e is error term

The second model by Ohlson (1995) suggested that firm value is associated with the realised value when a firm is liquidated (net asset) plus net flow of fund of the current year (net profit). The model can be illustrated as below:

$$MV_{it} = a + b_1 NA_{it} + b_2 NP_{it} + e_{it} \qquad (2)$$

Where:

MV_{it} is market value of firm i at end of year t
NA_{it} is book value of net asset of firm i at end of year t
NP_{it} is net profit (earnings) of firm i for the year t
a is intercept
b is coefficient
e is error term

Since Ohlson (1995) was the latest model and followed by many researchers in examining the value relevance of accounting numbers throughout the world, it is also the chosen model of the current study.

RESULTS

Descriptive Statistics

Table below describes the variables of the study. It provides information about maximum, minimum and mean of market value of equity, book value of net asset (equity) and net profit (earnings). The data

are normally distributed evidenced by their skewness that range from -2 to 2 (Gravetter and Wallnau, 2014).

Table 2: Descriptive Statistics

Variables	Market Value (MV) (RM)	Net Asset (NA) (RM)	Net Profit (NP) (RM)
Maximum	91,100,000	27,200,000	3,337,837
Minimum	464,987	158,099	-1,230,009
Mean	16,500,000	5,485,009	544,196
Std. Deviation	21,500,000	4,804,100	834,696
Skewness	1.4521	1.7148	1.4675
Kurtosis	.79954	2.9648	2.1717
Market value is market value of equity, net asset is book value of net asset (equity) and net profit is equal to earnings.			

Inferential Statistics

The aims of this section are to (1) investigate the relevance of book value and earning of Malaysian banks and (2) compare the value relevance of Islamic and conventional banks. To achieve these objectives, the researcher followed two steps. Firstly, the researcher tested the model on the pool samples and secondly, tested the model on Islamic bank and conventional bank separately. The value relevance of all banks data was first tested.

Table 3: Value Relevance of Book Value and Earnings

Variables	Pooled (1)		Islamic (2)		Conventional (3)	
	Coef.	White adj. t-stat	Coef.	White adj. t-stat	Coef.	White adj. t-stat
Intercept	-1574.1	-2.17**	906.45	24.05*	-1264.1	-1.40
Net Asset (NA)	2.52	10.11*	.09	2.86*	2.40	8.91*
Net Profit (NP)	7.84	6.65*	.17	3.80*	8.52	6.69*
F Stat	1079.0*		5.54*		818.61*	
R^2	69.3%		7.6%		66.7%	
Adj. R^2	69.2%		6.3%		66.6%	
N	959		137		822	

Note: Wald test showed that NA and NP of Islamic bank are equally important at 5% level whereas NA and NP of pooled sample and conventional bank are not equally important at 5% level

The first (1) regression of market value against book value and earnings of all banks produced an adjusted R2 of 69.2% which indicated that Book Value and Earnings of all banks are able to explain 69.2% of the variations in market value. They are significant at 5% confidence level, with adjusted t-stat of 10.11 and 6.65, respectively. This is consistent with the argument made by Ohlson (1995) that market value of firm can be explained by book value of equity and earnings. And this result also proved that even though business operations and reporting of banking industry is different from other industries, book value and earnings still play the same role in explaining the variation in market value of firm. The negative but significant adjusted t-stat of the intercept in this regressions indicated that there was a capital drain, which meant, Book Value and Earnings of the whole sample were over-valued. This is consistent with Landsman (1986).

$$MV_{it} = -1574.1 + 2.52NA_{it} + 7.84NP_{it} + e_{it} \tag{3}$$

The second (2) regression was done on Islamic bank only. The adjusted R^2 of 6.3% indicated that book value and earnings of Islamic bank together can explain 6.3% of the variations in its market value. This is relatively low if compared to the whole sample. However, both book value and earnings are significant at 5% confidence level. It shows that both book value and earnings are value relevant and able to explain the variations in market value. The positive and significant intercept produced by this regression revealed the existence of hidden reserves or other factors that provided information for a firm valuation. This is consistent with Kane and Unal, (1990).

Even though Dusuki and Abdullah (2007) suggested that customers selected Islamic banks in Malaysia due to their Islamic and financial reputation and quality of service, these factors are not transformed into value relevance of their book values and earnings.

$$MV_{it} = 906.45 + 0.09NA_{it} + 1.07NP_{it} + e_{it} \tag{4}$$

The third (3) regression is on other banks from conventional system. The regression produced an adjusted R^2 of 66.6% - slightly lower than the adjusted R-squared of the whole sample. This value suggested that the book value and earnings of conventional banks can explain the variations in their market values. The insignificant and negative intercept showed the

non-existence of hidden reserve or other factors that provided information for the firm value. This also suggested that the information provided by book value and earnings are sufficient to explain the variations in market value of conventional banks.

$$MV_{it} = -1264.1 + 2.40NA_{it} + 8.52NP_{it} + e_{it} \tag{5}$$

A comparison value relevance between Islamic and conventional banks lead to a further question i.e. why is the difference between Islamic banks and conventional banks explanatory power very huge.

There are a few possible reasons on why the adjusted R Squared of Islamic bank is low at the same time the intercept is positive and significant. First, the adjusted R^2 of Islamic banks is low possibly because the market is still not confident with the accounting information provided by Islamic bank. Second, the intercept of equation 4 (Islamic banks) is positive and significant because there is information needed by the market but not represented by book value of equity as well as earnings. This is known as the hidden reserve (Kane & Unal, 1990).

Third, it is also believed that special characteristics of Islamic banks such as the recognition of net income of Islamic banking comprise of different components which are not understandable or well accepted by the market lead to low explanatory powers. Conventional bank income comprise of the net of interest income and interest expense whereas, Islamic banking income comprise of the net of income generated from depositors fund income attributable to depositors, and income generated from shareholders fund. These possible reasons will be useful to be examined in future studies.

CONCLUSIONS, IMPLICATIONS AND FUTURE RESEARCH

Current study aimed at investigating the value relevance of book value and earnings of Malaysian Islamic and conventional banks using a market valuation approach. The result of market valuation approach of pool sample shows that book value and earnings of Malaysian banks are value relevant. This is consistent with prior study by Landsman (1986), Ohlson (1995),

Barth Beaver and Landsman (1996), Kane and Unal (1990) and Ittner and Larcker (1998) that market value of firm should be explained by book value of equity and earnings. Despite the difference in nature of business and different presentation format, book value and earnings of Malaysian banks are value relevant.

Next, separate regression of Islamic banks and conventional banks also observed that book value and earnings of Islamic and conventional banks are value relevant. However, it was found that the explanatory power towards market value provided by Islamic bank is far behind their conventional counterparts. The results implicated that book value and earnings of Islamic banks provide less information content towards market value despite their relevance. This suggests further investigation in future studies. Finally, the study contributes to the existing literature in the area of the value relevance of financial information in Malaysia.

Future studies could investigate the possible reasons for the lack of information content provided by book value and earnings of Islamic banks as compared to their conventional counterparts. The balance of explanatory powers could be explained by the special characters of Islamic banking such as the presentation of financial statement (Kadri, 2006), the compulsory advise by Syariah Advisory Board or religiosity (Chorou, 2013).

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