Minor thesis topic: The relationship between firm profitability and stock price: A case study of SET100 listed company in the stock exchange of Thailand during 2014 to 2016

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Abstract

The main aim of this study is focused on the ability of the company's financial performance in terms of profitability to predict the future stock return in terms of stock price. To verify the relationship between financial performance and market price of listed companies in the Stock Exchange of Thailand (SET), this study investigated the impact of financial indicators on their stock prices. To be exact, this study investigated the impact of Net Profit Margin (NPM), Price to Earnings Ratio (PE), Earnings per Share (EPS) and Price to Book Value Ratio (PBV) on the Market Price of listed companies in the SET 100 index from 2014 to 2016. This study also controlled for the effect of firm's age, industry type, audit type and ownership status on market price of stock. A total of 62 companies fit the description as companies that were delisted from the index and companies that joined the index in between the year were removed from the sample size. The data were obtained from the SET, the companies' financial reports and the companies' websites. The data were then

analyzed using multiple linear regression analysis with the authorized IBM SPSS software application.

The result showed that EPS, NPM, PBV and PE all have positive and significant relationship with the market price with the coefficient of variance (β) of 0.96 ($p<.001$), 0.14 ($p<.001$), 0.18 ($p<.001$), and 0.10 ($p<.01$) respectively. Among the four control variables, ownership status and industry type both have significant relationship with the market price while the firm age and audit type have no significant relationship with the market price.

Introduction

In Thailand, investing in the stock market directly is still considered as a popular choice for Thai investors. This explains why the volume of daily trading by retail investors in the Stock Exchange of Thailand is the highest compared to other groups of investors like the institutional investors, foreign investors and propriety investors (Ittner, Larcker & Randall, 2003).

However, as the stock price is likely to randomly change over a period of time, most of the investors like to make a decision for investment based on two methods of forecasting the stock's prices (Arkan, 2016). The first methodology is a 'fundamental analysis' that forecast the stock price based on the existing financial information of the companies. The financial information relating to the stocks comprised of profitability, financial leverage, liquidity, and financial ratios (Ittner et al., 2003). However, the investors have to keep in mind that this forecasting and analysis tend to be on a long-term horizon since most of the information is available on quarterly and yearly basis. The second methodology is 'Technical Analysis', which does not require the financial information of relating companies to the stocks since this analysis is based on the statistics of historical market price (Ittner et al., 2003). In other words, this technique could be used for both long-term and short-term analysis. Consequently, it could be seen that most of the Thai retail investors tend to focus on technical factors rather than fundamental factors. Also, most of them are likely to lack the proper understanding of how to invest in stocks by using the fundamental analysis technique. Indeed, corporate financial performance can directly reflect the quality of corporate management and operation. Moreover, the previous financial performance of the company has also provided an insight regarding the company's future activities for investors (Jabbari & Fathi, 2014).

Research Objective

To test the relationship between financial performance in terms of profitability and market price of listed companies in stock exchange of Thailand.

Literature Review

The financial ratios are the indicators used to determine the companies' performance compared with the other companies. Therefore, the financial ratio seems to be an essential tool for the investors to evaluate whether they should invest or not (Arkan, 2016). The financial ratio could be used to reflect the company's performance in different perspective by owner, manager, stakeholders, or creditors (Salmi & Martikainen, 1994; Aktaş & Seyfettin, 2015). The author has decided to use the Net Profit Margin, Price-to-Earnings Ratio, Earnings per Share ratio, and Price Book Ratio because these variables are commonly used among the investors to make a consideration. Consequently, the author strongly believes that using these four variables in this study will provide useful insight for investors.

Net Profit Margin: A company tends to have a unique advantage or comparative advantage over the other competitors when their Net Profit Margin is higher. Meanwhile, the higher net profit margin also means the company tends to have the higher profitability (Dita & Murtaqi, 2014). According to the previous studies and researches conducted by scholars, it has clearly demonstrated that the net profit margin has a positive relationship or positive correlation as well as has a significant influence on a stock's price (Dita & Murtaqi, 2014). Meanwhile, Jabbari and Fathi (2014) also mentioned in their study that Net Profit Margin is considered as one of the financial ratios along with the Return on Asset or (ROA) that has the highest influence on a stock's return or stock's price.

Price-to-Earnings Ratio or P/E is considered as one of the common financial ratios that the investors commonly use to conduct financial analysis. As the price-to-earnings ratio is likely to have a strong relationship with the price-to-book value ratio or PBV[1] in terms of assisting the investors to predict the company's performance (Gottwald, 2012). To illustrate, a high P/E means the investors tend to expect the future earnings to grow and vice versa. Consequently, it is no doubt to recognize that the investors commonly use to Price-to-Earnings ratio to analyze the price for the stock for the initial public offering (IPO), intrinsic value of the stock or relative value of the company's stock price when compared with others (Gottwald, 2012). To illustrate, Karan (1996) stated that long term investment strategy that is based on PE ratios is more successful than long term investment based on EPS and PBV. In other

[1]Price-to-Book value or PBV, which is considered as one of the value ratio that can demonstrate or reflect the company's evoluation of the company's share on the stock's price.

word, when investors make long term investment decision based on PE they are able to get more return than when they make the investment decision based on EPS and PBV. With these reasons along with his test, Petcharabul and Romprasert(2014) mentioned in his study that Price-to-Earnings Ratio is likely to have a significant relationship with a stock's return.

Earnings per Share or EPS is considered as one of the alternative financial indicators or financial ratios that investors commonly used to determine the company's performance compared with the companies that operate within a particular industry (Gottwald, 2012). Gottwald (2012)'s research also mentioned that the Earning per Share is likely to be a variable that has a strong relationship or linkage with the stock's price. A study of Suntornburut (2002), demonstrated that among the companies that operate in the telecommunication sector in the Stock Exchange of Thailand during 1999-2000, it is likely to find that Earning per Share (EPS) has a significant positive relationship with market price.

Price to Book ratio or PB is a financial ratio to compare the market value against the book value (Libby et al., 2010). In other words, this ratio assists the investors to know how much extra they are willing to pay for each dollar of equity. However, this ratio's benchmark is likely to vary from one industry to another since there is difference in the nature of the industry (Arkan, 2016).

Many scholars have mentioned in their studies that the Price-Book value tends to have a negative relationship with the company's return on equity (ROE) as well as the price-to-earnings ratio (P/E ratio) (Ştefan, 2016). Ştefan (2016) made further explanation that the Price Book ratio only reflects the future return on equity. According to Aras and Yilmaz, (2008), Price to Book ratio could show significant result in predicting the future gains on stock for one year period in an emerging market. Besides, Bullings and Morton (2001) also mentioned that the PB ratio is likely to be biased ratio as well as considered as a delayed recognition component.

From the literary review, researchers had determined the control variable which consists of firm age, industry type, audit type, ownership status in order to become the controller of this research. In order to prevent the alteration of the answers regarding the independent variable and the dependent variable .As well as trying to structure the results of the research so that it obtains the value of the relationship of the independent variable the dependent variable in a suitable direction (Arkan, 2016)

Methodology

This study mainly used the secondary data to identify the sample set or sample population. This set of the secondary data was used to verify and examine the influence of the company's performance on the securities' return. For this study, the sample size was the top 62 companies that are listed in the SET 100 Index of Stock Exchange of Thailand. The panel of the secondary data was collected from the official Website of Stock Exchange of Thailand and Aspen for browser, a stock chart program for collecting the data over the 3 years period; 2014 to 2016 in order to ascertain the relationship between the company's financial performance and its stock's price.

Data of the independent variables was sourced from the financial report of the selected companies and the dependent variables from the Stock Exchange of Thailand as at 31st of December between 2014- 2016. After the information and data has been collected, the author then used this raw data to input in a program called Statistical Package for Social Sciences (SPSS) to conduct the analysis based on the quantitative analysis consisting of descriptive statistics and analytical statistic. In other words, this analytical statistics used was multiple regressions.

Results

Regression Analysis

Variables	**Standardized regression coefficients**	***t***	**VIF**	**Tolerance**
EPS	0.96***	24.15	1.51	0.66
NPM	0.14***	3.64	1.31	0.77
PBV	0.18***	4.42	1.58	0.63
PE	0.10**	2.64	1.44	0.70
Audit Type	-0.03	-0.94	1.21	0.83
Ownership Status	-0.10**	-2.85	1.22	0.82
Firm Age	0.04	0.98	1.18	0.85
Industry Type	0.09*	2.43	1.43	0.70
R^2	0.83			
F	98.50***			

Significant at ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$

The regression result shows that the coefficient of variation (β) for all the independent variables EPS, NPM, PBV and PE are positive and statistically significant. The coefficient and p-value for EPS, NPM, PBV and PE are 0.96(p<.001), 0.14(p<.001), 0.18(p<.001) and 0.10(p<.01) respectively. EPS has the strongest effect on market price followed by PBV then NPM and lastly PE. Out of the control variables, only ownership status and industry type have an effect of market price with the coefficient of variation (β) of -0.10(p<.01) and 0.09 (p<.05) respectively. These variables are able to predict 83% of the changes in market price.

This shows that market value of shares is significantly and positively affected by high earnings per share, net profit margin, price-book ratio and price earnings ratio.

Discussions

The result of the multiple regression shows that earnings per share has a positive and significant effect on market price of the stock of companies listed in the Stock Exhange of Thailand during 2014 to 2016. This is consistent with the findings of Chang et al., (2008) and Gottwald (2012). Suntornburut (2002) also found the same result in her study of telecommunication companies in Thailand listed in the SET from 1999 to 2000. The result of this study also points to the category of investors in the Stock Exchange of Thailand. It shows that when EPS increases, investors are not in a hurry to sell the stock after receiving the dividends as this will bring down the market price of the stock due to increased supply of the stock in the market but the investors rather hold on to the stock. This shows that investors in the SET are long term investors rather than short term investors.

The NPM also has a positive and significant effect on the market price of stocks of the listed companies in the SET during the year 2014 to 2016. This is consistent with the findings of Anwaar (2016) and Dita and Murtaqi (2014). The reason for this kind of relationship according to Anwaar (2016) is that when the net profit margin increases, the company is able to retain more cash which will increase the value of the company and hence the stock price too will increase.

PBV also has a positive and significant effect on the market price of stock for the companies listed in the SET during 2014 to 2016. This finding is consistent with the result of Srinivasan (2012) and Stefan (2016). The relationship between PBV and market price is positive and significant because the historical price to book value can be used to forecast the future market price of the stock. Therefore, investors looking for capital gain in the market price can use the PBV for predicting the future market price.

Finally PE ratio has a positive and significant effect on the market price of shares for the companies listed in SET during 2014 to 2016. This is consistent with the findings of Sharif et al. (2015). Arslan, Zaman and Phil (2014) also found that PE ratio significantly determine the market price of shares for non-financial companies in Pakistan. The reason for this positive and significant relationship between PE ratio and market price of stock is because, when PE is higher investors generally anticipate a higher growth in earnings and thus there will be increasing demand for the shares of the company with higher PE ratio. This will drive the market price of the companies with higher PE ratio upward.

This study as therefore shown that the measures of profitability of the company in terms of EPS, NPM, PBV and PE ratio are able to predict the future market price of the companies listed in the Stock Exchange of Thailand.

Recommendations for future studies

1. The data of this study was collected from SET 100 index of companies from 2014 until 2016; therefore, it may be suitable to collect data over a period of time beginning from 5 years or 10 years in order to complete the efficiency of the study.
2. The variables in this study may not be able to explain all the changes of the market prices. With this said, suitable variables that are related may be added into future study.
3. A future study may also look at the macro- economic factors that may affect stock prices apart from the firm performance which is firm specific.

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