An Empirical Examination of the Indicators Influencing Malaysian Listed Manufacturing Companies’ Share Price Escalation

Chew Jing Jiet, Vikneswaran Manual

Abstract: The fluctuations and volatility on the share price discourage investments and raises concerns on the indicators or factors that can effectively boost the share price in long run. Most of the investors lose their wealth but also erode confidence in the stock market. This study sought to investigate the indicator that boost share price the most in long run among the manufacturing that listed in Kuala Lumpur Stock Exchange (KLSE). In accomplishing this overall objective, the study sought to determine which indicator among earning per share (EPS), dividend per share (DPS), return on equity (ROE), interest and inflation has the most effective impact on the listed manufacturing companies. The study employed secondary data that extracted from the annual report from individual companies and Bank Negara Malaysia for the ten-year period covering which covering from 2007 to 2016. The study was undertaken using quantitative research design. There are 30 listed manufacturing companies listed in KLSE constituted as the target population. Descriptive statistics and panel regression analysis techniques were employed to analyse the panel data. All collected data were tested by Normality and Multi collinearity tests before carried out the analysis. The study concluded that EPS is the most effective indicator toward the share price movement as compared to the other four indicators. The study recommends that investors should take this indicator as a guidance in their stock investment decision making.

Keywords: Earning per Share, Listed Manufacturing Companies, Share Price Movement

I. INTRODUCTION

The world economy was affected by the global Subprime Mortgage Crisis in the end of 2007. It caused the stock market became extremely volatility and turbulence. Rude (2009) stated that the global equity markets have lost approximately $32 trillion of United State Dollar in value since their peak. Before Subprime Mortgage Crisis happens, global fund managers, financial institutions and the investors paid fully attention on the rising and falling shares since it was one of the sources to gain significant returns and it is a trend which mostly people focused toward stock market rather than bond market. Sharif, et al (2015) discovered that people are too optimistic on global economic performance until overlook on the actual fundamental of world economic performance, some of them choose to ignore the underlying risk since the return from the stock market are extremely higher compare to other investment assets. The same issues also happened in Malaysia security market, the irrational speculators continue to invest their money into a too optimistic market and ultimately these investors lost their personal wealth.

Ksanini & Boujelbene (2014) discovered that the impact from Subprime Mortgage Crisis toward Malaysia economy is almost similar to Asian Financial Crisis which happened in year 1997 although Subprime Mortgage Crisis is started from United State and Asian Financial Crisis is started from Thailand. Subprime Mortgage Crisis that happened in the end of 2007 also brought a damaging impact toward Malaysia’s economic performance. Although the 1997 Asian Financial Crisis gave the worst impact toward the Malaysia economic performance. After Malaysia declared independent, its economy was almost fully depended on the primary commodities’ production. These commodities productions continued to play a crucial role in developing the Malaysia economic until the late 1970s. Ming Yu (2003) discovered that the primary sector’s relative importance started to diminish after 1970s. In the mid of 1980s, manufacturing sector became the main booster to drive the Malaysia’s economic to grow. Malaysia has transformed from a country which the economy is only reliant on the primary commodities into an industrializing once the inflow of foreign direct investment (FDI). In 1990, Malaysia economy became one of the best performers in the developing world over the past 25 years. According to Chang (2012), Malaysia manufacturing sector grew 12.3% per annum, with the exception of China, Malaysia achieved the top 3 highest rate of industrial growth in Asia.

Malaysia economic was comparatively unaffected by the Subprime Mortgage Crisis up to the first half of 2008, but its economy growth started declined in the second quarter of year 2008. However, Khoonand Mai-Hui (2010) stated that the officially economy recession is started in mid of year 2009. We can observe this situation from the Malaysia real gross domestic product (GDP) performance, it only grew with 0.1% year on year (yoy) on the fourth quarter of year 2008 when compared to a 4.7% yoy growth in the same year’s third quarter. In the first nine months of 2008, the average GDP growth was 5.9%. However, it fell by 6.2% yoy in the first quarter of 2009. Kinuthia (2011) explained that this circumstance was primarily caused by the drastic contraction in export value of 27.9% year on year in January 2009.

In year 2015, the encouragement of export-oriented industries and robust domestic demand, the manufacturing sector is foreseen to expand. The strong local demand and favourable external demand from several developed and developing country such as United State, China and Japan continued to support the Malaysia economic growth. The manufacturing sector in Malaysia is expected to grow with the faster pace due to the higher shipments of electronic and

Revised Manuscript Received on January 19, 2019.
Chew Jing Jiet, Faculty of Business & Management, Asia Pacific University of Innovation & Technology Malaysia.
Vikneswaran Manual, Faculty of Business & Management, Asia Pacific University of Innovation & Technology Malaysia
Another research negatively to the movement of (Myers, 2013) closely near the relation between all the variables. The dependent variable in the study is share price and the earning per share. However, Umar & Musa (2013) discovered that earning per share has insignificant relationship with stock prices even though most of the previous researchers support that earning per share is the factor which has the most significant relationship with share price. According to the previous study from Matthew, et al. (2014), a study of 17 quoted firms on Nigeria Stock Exchange proved that company share price in Nigeria is influenced by dividend payment.

In contrast, Masum (2014) discovered that dividend policy or dividend per share has a negative, insignificant relationship with stock price. According to Anwaar (2016), a study was conducted to examine the firm performance’s influence on the stock returns. Talamati and Pangemanan (2015) discovered that return on equity has no significant relationship with the share price. A previous study from Murthy, et al. (2017) concluded that the interest rate has an insignificant relationship with the stock market return.

Another research by Talla (2013) was carried out with the objective to explore the effect of macroeconomic variables on share prices volatility on the board of Stockholm Stock Exchange (OMXS30), results showed that interest rate is inversely correlated to the volatility of share price. Zhong Qiang (2014) carried out a research to investigate the effect of the macroeconomic factors on the share prices in the emerging stock market, China. Zhong Qiang (2014) revealed that inflation rate reacts negatively to the movement of Shanghai Composite Index. In contrast, Albulescu, et al. (2016) found that inflation rate has no significant influence on the stock price in the short-run even though most of the previous researchers supported that inflation rate reacts negatively to stock price.

II. LITERATURE REVIEW

Balakrishnan (2016) carried out a study to investigate the empirical relationship between the equity share prices and the earning per share. However, Umar & Musa (2013) discovered that earning per share has insignificant relationship with stock prices even though most of the previous researchers support that earning per share is the factor which has the most significant relationship with share price. According to the previous study from Matthew, et al. (2014), a study of 17 quoted firms on Nigeria Stock Exchange proved that company share price in Nigeria is influenced by dividend payment.

In contrast, Masum (2014) discovered that dividend policy or dividend per share has a negative, insignificant relationship with stock price. According to Anwaar (2016), a study was conducted to examine the firm performance’s influence on the stock returns. Talamati and Pangemanan (2015) discovered that return on equity has no significant relationship with the share price. A previous study from Murthy, et al. (2017) concluded that the interest rate has an insignificant relationship with the stock market return.

Another research by Talla (2013) was carried out with the objective to explore the effect of macroeconomic variables on share prices volatility on the board of Stockholm Stock Exchange (OMXS30), results showed that interest rate is inversely correlated to the volatility of share price. Zhong Qiang (2014) carried out a research to investigate the effect of the macroeconomic factors on the share prices in the emerging stock market, China. Zhong Qiang (2014) revealed that inflation rate reacts negatively to the movement of Shanghai Composite Index. In contrast, Albulescu, et al. (2016) found that inflation rate has no significant influence on the stock price in the short-run even though most of the previous researchers supported that inflation rate reacts negatively to stock price.

III. RESEARCH FRAMEWORK

A. Conceptual Framework

As a reference from Ahearne (2010), the conceptual framework also inserted in the chapter 2, so that the discussion on the relationship between all variable will be more clearly. In order to present the variables that being investigates in the graphical or diagrammatical form, a conceptual framework is required (Myers, 2013). The conceptualisation of the interrelation between all the indicators with the share price of manufacturing companies that listed in Malaysia are undertaken. The conceptual framework is showed in figure 1.

B. Model Specification

Gray, et al. (2017) defined linear regression as a statistical procedure which applied to forecast the amount of variation in a dependent variable that can be anticipated for a given change in an independent variable. Simple regression is assumed to has one dependent variable and one independent variable. Whereas, multiple regression involves one dependent variable and two or more independent variables.

In the previous study, the scholars employed simple linear regression model (Talamati & Pangemanan, 2015)(Matthew, et al., 2014). Regression models create the core of the discipline of econometrics. Simple linear regression model is the elementary type of regression model, which it can be expressed by the following equation:

\[ y_t = \beta_1 + \beta_2 x_t + u_t. \]

The observations of a sample are indexed into the subscript \( t \). However, the total number of observations which called as sample size will be denoted by \( n \). Hence, for a sample of size \( n \), the subscript \( t \) runs from 1 to \( n \). Each observation consists an observation on a dependent variable, showed as \( y_t \) for the observation \( t \).
However, $X_t$ is the independent variable or an observation on a single explanatory variable. According to the formula above, it links the observations on the dependent and the observation on each independent variable in terms of two unknowns which is listed as $\beta_1 + \beta_2$ (Davidson, 2009).

Multiple linear regression model was also employed by Hussainey, et al. (2011) to study the financial ratios in predicting the stock price trends. Murthy, et al. (2017) also employed the multiple linear regression in examining the relationship between macroeconomic factors and share price movement in Malaysia. However, the unknown $\beta$ is the regression coefficients, $\alpha$ is the intercept and $\epsilon$ is the error term (Majid & Benazir, 2015).

### IV. RESULTS AND DISCUSSION

#### A. Finding of Descriptive Statistics

This section demonstrates the descriptive statistical analysis of the obtained data according to the results of the entire sample. Summary statistics that summarise the measures of the central tendency such as mean, minimum and maximum observations, as well as the measures of dispersion such as standard deviation.

#### Table 4.1: Panel Variables Summary Statistics (overall)

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share Price</td>
<td>300</td>
<td>.03</td>
<td>9.85</td>
<td>1.1459</td>
<td>1.18881</td>
</tr>
<tr>
<td>Earning Per Share</td>
<td>300</td>
<td>-51.31</td>
<td>112.02</td>
<td>16.0263</td>
<td>18.04244</td>
</tr>
<tr>
<td>Dividend Per Share</td>
<td>300</td>
<td>.00</td>
<td>40.00</td>
<td>5.8310</td>
<td>6.51574</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>300</td>
<td>-18.39</td>
<td>49.32</td>
<td>9.3349</td>
<td>7.82342</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>300</td>
<td>2.00</td>
<td>3.50</td>
<td>3.0000</td>
<td>.39795</td>
</tr>
<tr>
<td>Inflation</td>
<td>300</td>
<td>.58</td>
<td>5.44</td>
<td>2.4090</td>
<td>1.23603</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.1 shows the summary statistics for the secondary data observation of the original sample which consisting of 30 firms over the 10 years period (2007-2016). There are totally 300 sample sizes (N) with no missing data in the table. The descriptive statistics shows that, the mean value of the share price for these 30 companies is 1.15 over the previous 10 years period. The minimum value of the share price among these 30 companies is 0.03, whereas, 9.85 is the maximum value. Among the independent variables, earning per share has the highest standard deviation of 18.04 where the data are extensively spread around the mean of 16.64. Interest rate has the lowest standard deviation which is just 0.39 where its minimum value is 2.00 and maximum value is 3.50.

#### B. Panel Data Normality Test

<table>
<thead>
<tr>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Share Price</td>
<td>.187</td>
</tr>
<tr>
<td>Earning Per Share</td>
<td>.126</td>
</tr>
<tr>
<td>Dividend Per Share</td>
<td>.206</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>.079</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>.300</td>
</tr>
<tr>
<td>Inflation</td>
<td>.280</td>
</tr>
</tbody>
</table>
Table 4.2 illustrate the results of Kolmogorov-Smirnov and Shapiro-Wilk test on the panel data. The objective of the test is to find out whether the data collected is normally distributed. The test was carried out against the null hypothesis of normal distribution. The results indicate that the p-values for all data collected is equal to 0.000. This means that the null hypothesis of normality is rejected; implying that the data was not normally distributed.

Skewness and Kurtosis were used to further determine whether the data obtained is presented in normal distribution. West et al. (1995) proposed that the normal distribution data should has a Skew value of larger than 2.1 and kurtosis value of larger than 7.1. Kim, Hae-Young (2013) suggested that data sample sized that larger than 300 (N>300), the normality distribution of data should depend on histograms and the absolute values of skewness and kurtosis without considering z-values. Young (2013) suggested either an absolute skew value larger than 2 or an absolute kurtosis value greater than 7 may be used as reference values for determining substantial non-normality. This means, the variables are normal distributed when the value of skewness are between -2 to +2 and kurtosis value are between -7 to +7.

### Table 4.3: Descriptive statistic on Skewness and Kurtosis

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Share Price</th>
<th>Earning Per Share</th>
<th>Dividend Per Share</th>
<th>Return on Equity</th>
<th>Interest Rate</th>
<th>Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Skewness</td>
<td>3.648</td>
<td>1.628</td>
<td>2.968</td>
<td>5.16</td>
<td>-1.459</td>
<td>1.163</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.141</td>
<td>.141</td>
<td>.141</td>
<td>.141</td>
<td>.141</td>
<td>.141</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>19.367</td>
<td>5.738</td>
<td>9.720</td>
<td>4.007</td>
<td>1.842</td>
<td>1.221</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>.291</td>
<td>.291</td>
<td>.291</td>
<td>.291</td>
<td>.291</td>
<td>.291</td>
</tr>
</tbody>
</table>

C. Overall Goodness of Fit Model

Regression analysis was employed to determine and evaluate whether the independent variables which included earning per share, dividend per share, return on equity, interest rate and inflation can be relied on in explaining and analysing the share price (dependent variable). Table 4.6 shows the coefficient of determination (R²) of 0.312 which indicates that the model can be explain 31.2% of variations or changes in the share price (dependent variable). Besides, the adjusted R² was 30.0%, this means the proportion of share price is partially explained by these independent variables. Otherwise speaking, 30.0% of the movements in share prices are caused by other factors that are not accounted for in the model.

### Table 4.6: Overall Model Summary – Goodness of Fit

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.558³</td>
<td>.312</td>
<td>.300</td>
<td>.99457</td>
</tr>
</tbody>
</table>

  a. Predictors: (Constant), Interest Rate, Dividend Per Share, Return on Equity, Earning Per Share

D. Overall Analysis of Variance

Table 4.7 presents the analysis of variance (ANOVA) on the influence of earning per share (EPS), dividend per share (DPS), return on equity (ROE), interest rate and inflation toward the share price. The results indicate that the model is statistically significant in explaining the impact of earning per share (EPS), dividend per share (DPS), return on equity (ROE), interest rate and inflation toward the share price of manufacturing companies that listed in Bursa Malaysia. Zain & Ibrahim (2015) proposed that dependent variable is affected by independent variables if p-value is lesser than 0.05. Table 4.7 shows that earning per share, dividend per share, return on equity, interest rate and inflation affects the share price significantly because the p-value (0.000) is lesser than 0.05. This means that the ANOVA results indicate that the combined effect of earning per share (EPS), dividend per share (DPS), return on equity (ROE), interest rate and inflation toward the share price.

### Table 4.7: Anova

#### ANOVA³

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>131.611</td>
<td>5</td>
<td>26.322</td>
<td>26.610</td>
<td>.000³</td>
</tr>
<tr>
<td>Residual</td>
<td>290.817</td>
<td>294</td>
<td>.989</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>422.427</td>
<td>294</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

  a. Dependent Variable: Share Price
  b. Predictors: (Constant), Interest Rate, Dividend Per Share, Return on Equity, Inflation, Earning Per Share
E. Overall Regression Coefficient Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>-7.16</td>
<td>4.02</td>
<td>-1.491</td>
<td>.137</td>
</tr>
<tr>
<td>Earning Per Share</td>
<td>.041</td>
<td>.005</td>
<td>.016</td>
<td>8.345</td>
</tr>
<tr>
<td>Dividend Per Share</td>
<td>-.095</td>
<td>.011</td>
<td>.026</td>
<td>.441</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>-.027</td>
<td>.010</td>
<td>-.175</td>
<td>-2.593</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>.636</td>
<td>1.79</td>
<td>.200</td>
<td>3.557</td>
</tr>
<tr>
<td>Inflation</td>
<td>-.299</td>
<td>.056</td>
<td>-.217</td>
<td>-5.716</td>
</tr>
</tbody>
</table>

Note: Dependent Variable: Share Price

F. Regression Analysis on Earning per Share

Earning per share has p-value of 0.000 which is lesser than 0.05, this means that it has significant on share price. Earning per share has the highest beta coefficients (β = 0.660) among all the independent variables. Nathans et al. (2012) stated that beta coefficients is the degree of change in the outcome variable for every 1 unit of change in the predictor variable. This indicates that every 1 unit increase in earning per share will make the share price increase by 0.616 unit also. Since earning per share is significant to share price and has the highest beta, therefore, the study accepts:

H₁: Earnings per share (EPS) is the indicator to boost the Malaysia public listed manufacturing company share price the most in the long run.

G. Regression Analysis on Dividend per share

Dividend per share has p-value of 0.660 which is greater than 0.05, this means that it has no significant on share price. Dividend per share has the beta coefficients of 0.026. Since dividend per share has no significant to share price, therefore, the study accepts:

H₁: Dividend per share (DPS) is not the indicator to boost the Malaysia public listed manufacturing company share price the most in the long run.

H. Regression Analysis on Return on Equity

Return on equity has p-value of 0.010 which is lesser than 0.05, this means that it has significant on share price. However, the beta of return on equity is -0.175. Hoyt et al. (2006) stated that If the beta coefficient is negative, the interpretation is that for every 1 unit increase in the predictor variable, the outcome variable will decrease by the beta coefficient value. This indicates that every 1 unit increase in return on equity, the share price decrease by 0.175 unit. Thus, return on equity is negatively significant to share price, but its beta is lower than earning per share. Hence, this study accepts:

H₁: Return on equity (ROE) is not the indicator to boost the Malaysia public listed manufacturing company share price the most in the long run.

I. Regression Analysis on Interest Rate

Interest rate has p-value of 0.000 which is lesser than 0.05, this means that it has significant on share price. However, the beta of interest rate is 0.208, which is lower than earning per share. This indicates that every 1 cent increase in interest rate will make the share price increase by 0.208 cent also. Due to the comparisons of p-value and beta coefficient, the study accepts:

H₁: Interest rate is not the indicator and factor that can boost the Malaysia public listed manufacturing company share price the most in the long run.

J. Regression Analysis on Inflation

Inflation is negatively significant to share price because it has p-value of 0.000 and beta of -0.217. This indicates that every 1 unit increase in inflation, the share price decrease by 0.217 unit. Thus, inflation is negatively significant to share price, but its beta is lower than earning per share. Hence, this study accepts:

H₁: Inflation is not the indicator to boost the Malaysia public listed manufacturing company share price the most in the long run.

V. CONCLUSION

From the research above, earning per share (EPS) is the indicator that boost the Malaysia public listed manufacturing companies the most in long run. This conclusion is based on the finding that earning per share has the positively significant effect of p-value and highest beta among all independent variable in regression model. This means investors have to more focus on the trend of earning per share for each public listed manufacturing companies in Malaysia, because it is the most effective indicator.

The study further concludes that dividend per share (DPS) is not the indicator or factor that can boost the public listed manufacturing company’s share price most effectively in Malaysia for long term. This is based on the finding that dividend per share has a p-value that is higher than confidence level of 5% and indicates that there is no significant relationship between dividend per share to share price. Therefore, dividend per share should not be too emphasise by those investors who prefer has a higher capital gain.

According to the research that presented above, return on equity is not the indicator that boost the Malaysia public listed manufacturing companies’ share price the most in long run. This conclusion derives from the finding that return on equity (ROE) has negatively significant relationship with the share price.
Hence, return on equity is not an indicator for the investors who intend to invest in Malaysia public listed manufacturing companies for a long-term period. The study concludes that interest rate is not an indicator that boost the public listed manufacturing companies’ share price in Malaysia for long run also. Specifically, although interest rate has a little effect on the share price in a longer period, but it is still not the most effective indicator to boost the share price in Malaysia. The results in the regression model showed that the p-value of interest rate is lower than 5%, yet its beta is not the highest among all independent variables. Thus, interest rate is an indicator to gives attention, but other factors should not be losing sight also.

The research concludes that inflation is not the indicator that boost Malaysia public listed manufacturing companies share price the most in long run. This conclusion derived from the regression model that employed on the inflation and share price, results showed that inflation is negatively significant to the share price, this means inflation is inversely proportional to share price. However, inflation’s beta is not the highest among all the independent variables. Hence, inflation can be also taking into account when making the decision on when to invest because it has some effect on the share price.

REFERENCES


**AUTHORS PROFILE**

Chew Jing Jiet is working as Faculty of Business & Management, Asia Pacific University of Innovation & Technology Malaysia.

Vikneswaran Manual is working as Faculty of Business & Management, Asia Pacific University of Innovation & Technology Malaysia.