THE EFFECT OF SHARE REPURCHASE ON THE PERFORMANCE OF COMPANIES LISTED ON BURSA MALAYSIA

Faculty of Economics and Business,
Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia
Corresponding e-mail: amnizza@unimas.my*

ABSTRACT

The aim of this research is to examine the impact of share repurchase towards the performance of listed companies in Bursa Malaysia. Share repurchase has become significantly popular in recent years. It has been recognized as one of the effective tools to enhance communication between companies and their shareholders. This research consists of two specific objectives; to examine the relationship between repurchases of shares and the performance of listed companies on Bursa Malaysia and to examine the relationship between Share repurchase and return on asset (ROA). This research comprises several theories such as signaling theory, efficient market hypothesis, free cash flow hypothesis as well as substitution hypothesis. In this research, company performance is the dependent variable while the independent variables are known as share repurchase. The impact of independent variable towards dependent variable has been examined in this research. Furthermore, asset turnover, cash flow margin, leverage, and market-to-book ratio of company was the control variable. This research has employed secondary data to examine the effect of share repurchase towards listed company’s performance in Bursa Malaysia. The data was derived from several sources such as Bursa Malaysia official website, annual report of the company as well as DataStream database. Several statistic tests have been carried out to test the objective of research.

INTRODUCTION

Share repurchase was initially not allowed in Malaysia. However, starting from the date of 1 September 1997, share repurchase has been approved and was made permissible in Malaysian market. The market then realized there is an increase in number of companies repurchasing their shares from investors and shareholders in the open market. This is due to the drop of share prices in 1997. During the early stage of the Asian financial crisis from 1997 to 1998, a decision of the authorities on policy change has been made to allow companies to repurchase their shares, which are currently undervalued from their investors or shareholders. This is expected to help in stabilizing the weakening market (Isa, Ghani, & Lee, 2011).

Malaysia, companies can buyback their own shares from their shareholders or investors through the open market only. There is a maximum of 10% of the number of outstanding shares is allowed for the company when buying back their shares from shareholders or investors. The company plans to buy back their shares has to get the approval of their shareholders or investors hen buying back their company’s shares. This approval can be obtained during AGM, also known as the annual general meeting of the company or during an extraordinary general meeting. The validation period of the approval from shareholders or investors to the company for share repurchase is within one year or some is until the next annual general meeting of the company’s shareholders. The approvals of the shareholders or investors need renewing if the progress of share repurchase is not completed within the approval year (one year).

According to Ikenberry, Lakonishok, and Vermaelen (1995), there are several motivations for companies to buy back their shares from their investors, which include preventing takeover risk, company’s capital structure adjustment, distribution of excess cash, signaling, wealth expropriation from bondholders and substitution for cash dividends. A study by Miller and Rock (1985) mention
that share repurchases were used by the manager of a company to give signals about better prospects. When the market is incomplete, the repurchase of shares can be used to signal the future cash flows of a company. In other words, the decision of share repurchase can reflect certain information such as the profitability of the company to the investors. This concept can be explained by using signaling theory. The purpose of a company to buy back its shares is to signal the public that the company is currently performing well and will become better in the future. Thus, the purpose of this research is to examine the effect of share repurchase on the performance of company listed on Bursa Malaysia.

**LITERATURE REVIEW**

This section will review related theories, previous literature and hypothesis development, which can be used to explain the relationship between share repurchase and the company performance.

**Signaling Theory**

According to Connelly, Certo, Ireland, and Reutzel (2010), signaling theory is described the behavior of two parties when there is asymmetric information accessed by them. Spence (2002) supported that signaling theory can be used to reduce asymmetry information between different parties. A study of corporate governance by Zhang and Wiersema (2009) shows the way which company’s CEOs give signal to the potential investors regarding the non-observable quality of their company through the observable quality of company’s financial statements. Several researchers applied signaling theory when they are explaining about the way companies communicate adherence to social values to the stakeholders of an organization by using heterogeneous boards (Miller & Triana, 2009).

The decision-making processes of individuals or groups can be influenced by information. Public information is the information which is freely available and can be easily access by individuals. On the other hand, private information is only available or accessible to certain group of individuals from the public (Connelly et al., 2010). Stiglitz (2002) claims that when there is situation such as “different people know different things”, then there is information asymmetries. This is due to some information is private and only accessible to certain group of people.

However, based on Johnstone and Grafen (1993), the signalers were suspected to have an incentive to “cheat” or provide information which is not true. This is due to the partial competing interests between the signalers and receivers. By providing the false information, the company misleads the decision of public to select them as their choice. Westphal and Zajac (2001) stated that some companies initially signal their investors or stockholders regarding future stock repurchase but do not exercise it at last. This situation shows the discrepancy between formal plans and subsequent actions by the company. It is called as decoupling. A reputation for dishonesty might be developed due to companies and their executive have decoupled their formal plans and subsequent actions from time to time. Due to this reason, Signal honesty has been referred by the management scholars, which means there is quality-signaler associated with the signal.

There are several reasons found in different literature which are, to distribute excess cash to investors of the company when there is lack of investment opportunity in the current market, to avoid any takeover by potential parties, to signal the market regarding the undervaluation of shares, to make adjustment on the financial leverage of company and others (Lee, Ejara, & Gleason, 2010). According to Punwasi and Brijlal (2016), the signaling theory explains about the ‘signal’ provided by the management of a company to the market, enable the current market to realize the undervaluation of market price of the shares. Initially, information asymmetry between management and investors is expected to be occurred. There is a higher tendency for a company's value to be obscured due to information asymmetry when there is higher degree to assess the value of a company. Therefore, the issue of undervaluation is unlikely to occur on the company.

Punwasi and Brijlal (2016) also claimed that the ability of company to acquire back the shares
with a lower price can be determined by the market timing of share repurchases. Share repurchase currently experiences an growing trend and this is recognized as a new phenomenon. Research made by Grullon and Ikenberry (2000) explained this phenomena saying that the markets had been announced with new information, also known as ‘signal’, regarding share repurchases and it reflects the future of a company and also its upcoming share price, and thus, markets respond to the announcements.

There are two different versions of explanation regarding to ‘signaling’ (Grullon & Ikenberry, 2000). The first version mentions that share repurchases tend to deliver a positive signal which expect the inflow of cash and earnings of the company to increase in the future. It truly shows that the forecast of the management regarding the future cash flow is correct and the company’s future commitments such as interest payments or capital expenditures were sufficiently covered without using the excess cash of the company. However, in the second version of explanation, there is no new information delivered from the management to the market regarding to the future of the company as well as its share price. An disagreement on the pricing of market towards the current performance of company is expressed instead. The study of Grullon and Ikenberry is based on rationale decisions made by investors. Thus, personal emotions or feelings are not allowed to alter the decision of investors (Punwasi & Brijlal, 2016).

According to Isa et al., (2011), as there is presence of information asymmetry where the insider of a company will obtain more quality information compare to the outsider of that company, company will then repurchase their own shares from the public once it realized the value of the company is not correctly provided by the market.

Jiang and Koller (2011) explained signaling theory in another way. They state that share repurchase gives a negative signal, where a company has failed to find investment opportunities which will create sufficient value for the company. However, Lee and Rui (2007) claimed that company may has other incentives to make share repurchase. For example, distribution of company’s excess cash and tax benefits. To eliminate threats of unfavourable takeover by other potential parties and to reduce the supply of company shares in the market are also the motives for a company to make share repurchase.

**Substitution Hypothesis**

According to Yarram (2014), substitution hypothesis can be explained as company decides to repurchase their shares rather than paying dividends to their shareholders. Dividend payments of a company is substituted by share repurchases. No matter repurchase of shares or paying out dividends to investors, both methods involve a payout from company to their investors. Yarram (2014) also claimed that the difference between share repurchases and dividend payouts is that share repurchase involves individual investors while dividend payout included all investors of the company. When a company make a share repurchase from their existing investors, investors have the right to decide whether to sell back their holding shares to the company.

Besides, based on Ross, Westerfield, and Jaffe (2005), the share price of a company will go down with the amount of dividends paid proportionately after the company pay dividends to their shareholders in term of cash. However, there are several researches such as Ditmar (2000), Ikenberry et al., (1995), Stephens and Weisbach (1998) stated that a reverse effect on share price of a company when there is an corporate announcement regarding repurchase of shares. This announcement would push up the share price with 3 to 4 percent of average return within the announcement period.

According to Rohaida and Kamarun (2013), share repurchase has strong tendency for a company to make share repurchase rather than pay cash dividends due to the positive reaction on company’s share price. Share repurchase announcements are not alike with dividend announcements. They are not liabilities to the companies. Repurchase of shares is not considered as necessary to companies in order to gain benefits and not all the shareholders of the company participate in the event of share repurchase. They also claims that even though share repurchase is inequality, but it is recognized as an effective tool for the management of the company to distribute
excess of cash efficiently especially when the company’s distribution policy consider about flexibility. An appropriate number of shares which were required to be repurchased can be determined by the managers whenever there is a need to do so.

Moreover Aharoni, Brown, and Wang (2010) stated that many companies in Australia pay regular dividends to their investors continuously. At the same time, the companies apply the method of share repurchases in order to redistribute the excess cash of the company to their existing shareholders instead of increase the dividend of shareholders. Besides that, a research made by Henry (2011) mentioned that the demand for dividends in the Australian market increases, thus, companies are expected to pay dividends to their investors, and repurchase shares at the same time.

Based on Brown and Oday (2006), there are several studies regarding the payout policy integrate dividend. Besides dividend payout, share repurchases is recognized as another method for disbursement of cash. ‘Substitution hypothesis’ explains that method of share repurchases can act as one substitution method for dividend payout.

By referred to Grullon and Michaely (2002), the interchangeability of dividends and share repurchases was explored directly. They examine the correlation between buy back of shares with deviations from the payout policy under certain expectation. According to Lintner (1956) model of expected dividends, and controlling for characteristics of company, a result shows a strong evidence which many US companies had repurchase their shares by using the fund which can also be used in other way such as increase the dividend pay to their shareholders within the years of 1972 to 2000.

Eije and Megginson (2008), Skinner (2008) claimed that in US, companies had frequently select share repurchase as their primary method for paying their investors. Skinner (2008) also claims that the relationship between earnings and dividends is weak while the relationship between earnings and share repurchase is strong. Therefore, share repurchase is considered as a more preferred method for US companies in distribution of cash compare to dividends payout.

One coin has two sides. There are also some evidences which against the substitution hypothesis. In a survey conducted by Brav, Graham, Harvey, and Michaely (2005), CFOs have been interviewed and a conclusion has been drawn from this survey. It states that share repurchases and dividends are pure substitutes for each other is not valid. The flexibility inherent in share repurchases is valued by the managers of the company in contrast to the rigidity of dividends relatively. Besides that, based on Lintner (1956), managers would not reduce share repurchase hypothetically to increase shareholders’ dividend earnings which used to backed up, then other sources for funding are allowed. Furthermore, based on the listing rules for the disclosure requirement, company is required to disclose the details of the transaction when it implements share repurchases. For instance, the price and the volume of repurchase. Company shall make the report before 6.30p.m. on the same day as the company repurchase the shares from the shareholders.

Furthermore, the listing rules for the disclosure requirement also set a maximum of 15% of the average market price for the security as calculated over the last five market days immediately prior to the purchase date, which a listed company is required to set the price in between, when repurchasing its shares. The repurchased shares may be partly or completely retained as treasury shares, or in another situation, partly or fully canceled. The treasury shares may be used by the company in several ways such as resold to the market, employee share option scheme or being used for the distribution of stock dividend subsequently (Mansor & Lee, 2014).

According to Almeida, Fos, and Kronlund (2016), Government, institutional investors, activist shareholders and media give intense pressure the companies on their cash allocation. Grullon and Michaely (2004) stated that it is one of the good alternative for companies to return cash to their investors through share repurchase. This is because for companies which is rich in cash are able to generate a greater abnormal announcement returns intentionally when there is a new repurchase programs being started. On the other hand, some observers argue the companies should use the cash on its employment and research rather than repurchasing company’s shares. Besides, the increase in share repurchase has weaken the long-term prospects of the economy and caused damage to the recovery from the recession recently. Based on Lazonick (2014), repurchases of share can be used
to explain the reason for increase in profitability of corporation followed by the financial crisis does not incurred increase in employment and economic prosperity in overall.

**Hypothesis Development**

According to Nohel and Tarhan (1998), for the full sample, the repurchasing companies and control companies have no significant difference in their performance before any company make repurchase of shares. However, the operating performance of the companies experienced improvement significantly after the companies make share repurchase. The median abnormal cash flow return for year 0, +1 and +3 show positive and significant while the abnormal return for year +2 shows positive but insignificant.

Moreover, there is a research from Ocal (2014), companies that repurchase their shares had improved significantly relative to control companies after the years of repurchase. For the period of -1 and +1, the median abnormal performance of repurchasing companies are positive and significant while for the period of 0 and +2, there are positive but not significant changes in the median abnormal performance. For year +3, it shows negative and insignificant. The results are inconsistent with the results of Nohel and Tarhan (1998). Besides, Ocal (2014) claims that there is no significant but positive abnormal performance for companies in the period of post-repurchase. Therefore, in period of post-repurchase, companies were outperform insignificantly when compare to control companies. This results is not consistent with that in Nohel and Tarhan (1998) as well as they claimed that the companies were underperform insignificantly after repurchases were made. According to Nohel and Tarhan (1998), asset turnover can be used to determine the performance of companies efficiently. Based on their research, there is a superior turnover incurred in companies compared to control companies. The difference become more significant after the repurchase of shares has been made by the companies.

Based on Ocal (2014), the reason for the decrease in asset turnover of a company is because the amount of asset sales or the asset acquisition had changed. Asset turnover differences are negative and insignificant for post-repurchase years such as 0 and +2 while is positive but insignificant for year +3. However, Nohel and Tarhan (1998) claims that there is a positive and significant relationship for the asset turnover in post-repurchase period. Therefore, the result is inconsistent with the results of Nohel and Tarhan.

There is insufficient evidence which related to cashflow margin from the research of Nohel and Tarhan (1998). The result shows an insignificant difference incurred in the margin between share repurchasing companies and control companies via univariate statistics.

The results from Ocal (2014) shows the relationship between cash flow margin of repurchasing companies have insignificant different compared to that in their control companies. This result shows consistency with Nohel and Tarhan (1998). It shows that there is undervaluation exists in the company that repurchase their own share when compare to the control companies by referring the median values of market-to-book ratio of equity for the sample companies in the research of Nohel and Tarhan (1998). The majority of undervalued companies are low-q companies.

In the study of Ocal (2014), both the pre-repurchase and post-repurchase periods, the market-to-book values of repurchasing companies are significantly lower than their control companies. In the full sample of this study, the companies are undervalued as the repurchasing companies have a significantly lower market-to-book values compare to their control companies. The companies also showed undervalued result but in insignificant values. Nohel and Tarhan (1998) also claims that the companies primarily finance their share repurchase via borrowing. Based on their research, the leverage ratio increased after repurchase of shares has been made by the companies.

According to Ocal (2014), the leverage of repurchasing companies decreases after repurchase of shares has been made. The result is not consistent with the result in Nohel and Tarhan (1998). This is because all of the companies financed their repurchases by leverage as the leverage ratio has increased in the repurchase year (Nohel & Tarhan, 1998).
For regression analysis, based on the research done by Nohel and Tarhan (1998), there is a positive but insignificant value which is 1.55% for the constant term in the regression of median cashflow of return on assets for the post-repurchase period on that for the pre-repurchase period. Specifically, there is a positive and significant abnormal cash flow return in the post-repurchase period for companies with low performance.

The asset turnover has a intercept term of 0.20 which is significant at the 5% level from the research from Nohel and Tarhan (1998). Low performance companies have contribute in this improvement mostly which shows a positive and significant relationship with 0.46 at 5% level of significance. However, high performance companies has only 0.04 which shows an insignificant relationship. By referring Ocal (2014), there is positive but insignificant intercept term for asset turnover. This means that asset turnover is related to the trend of pre-repurchase significantly. Therefore, there is inconsistency in both findings as Nohel and Tarhan (1998) claimed that the relationship between repurchase and asset turnover is positive and significant.

The result from Nohel and Tarhan (1998) shows there is no sufficient evidence to support any improvement in margin. On the other hand, according to Ocal (2014), the beta and intercept term of cash flow margin for full sample are significant. This means that the changes in margin of repurchasing companies for post-repurchase period are related to repurchases significantly.

There is a constant result shows in investor valuation of repurchasing companies based on the market-to-book ratio after they made repurchases based on the market-to-book ratio (Nohel & Tarhan, 1998). There is positive but insignificant intercept term for market-to-book ratio of repurchasing companies for full sample. Particularly, the relationship between market-to-book values and pre-repurchase values in high performance companies is positive and significant (Ocal, 2014).

Last but not least, based on the result from Nohel and Tarhan (1998), there is an increase in leverage after the companies made repurchases. However, according to Ocal (2014), leverage ratio for full sample is lowered and decreased significantly after repurchases of shares. This is due to the repurchase of shares made by companies is not all financed via borrowing. This evidence is inconsistent with that in Nohel and Tarhan as they claimed that all companies financed repurchases via borrowing.

Furthermore, Muritala (2012) mentioned that the manner and alternative applied by company in utilization of assets in order to gain positive returns can be used to measure the efficiency of the company management. When measuring the efficiency of management, asset turnover ratio used to be one of the significant financial ratio to measure it. Muritala claims that there is a positive relationship between asset turnover and company performance.

Based on Mule and Mohamed (2015), there is a weak but significant relationship between financial leverage and return on asset. The study from Maniagi, Mwalati, Ondiek, Musiega, and Ruto, (2013), Shah and Khan (2007) as well as San and Heng (2011) shows consistency with the directions of association which is negative relationship between financial leverage and performance. However, according to the study of Deesomsak, Paudyal, and Pescetto (2004), the relationship between leverage and performance of companies in Malaysia is negative and insignificant.

All in all, this study determines the relationship between the share repurchase and the performance of the company in Bursa Malaysia. Basically, a company decides to buyback their shares give a signal to their shareholders or investors that the company shares are currently undervalued. This should notice the shareholders or investors that the shares they are holding worth better in current market. Thus the hypothesis of this research are;

H1: The relationship between repurchases of shares and the performance of listed companies on Bursa Malaysia is significant.
H2: The relationship between share repurchase and return on asset (ROA) is significant.

**METHODOLOGY**
This research is conducted in order to study the relationship between share repurchase and company performance. The sample of this study consists of all open market share repurchases announced between 2014 and 2018. The controlled variables considered in this research are asset turnover, cash flow margin, leverage, and market-to-book ratio of company. Purposive sampling method was deploy to gather data of companies from Bursa Malaysia official websites, annual report of companies as well as DataStream database. The time span for this research is from year 2014 until 2018. Causality approach is also used in this research in order to determine the relationship between independent variable which is share repurchase and dependent variable which is performance of company listed on Bursa Malaysia as well as the controlled variables considered in this research, which include asset turnover, cash flow margin, leverage, and market-to-book ratio of company.

**Estimation Model**

This model is formulate as below:

\[
CP = \beta_0 + \beta_1 SR_{i,t} + \beta_2 AT_{i,t} + \beta_3 CFM_{i,t} + \beta_4 LEV_{i,t} + \beta_5 MTB_{i,t} + \epsilon_{i,t} \quad \ldots \ldots (1)
\]

whereby,

- \(CP\) = Company performance for company \(i\) in period \(t\)
- \(SR\) = Share repurchase for company \(i\) in period \(t\)
- \(AT\) = Asset turnover for company \(i\) in period \(t\)
- \(CFM\) = Cash flow margin for company \(i\) in period \(t\)
- \(LEV\) = Leverage for company \(i\) in period \(t\)
- \(MTB\) = Market-to-book ratio for company \(i\) in period \(t\)

**Table 1: The definitions for variables and measurements of the research**

<table>
<thead>
<tr>
<th>Variable and measurement</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flow return on Assets (ROA)</td>
<td>Earning before depreciation, interest, and taxes (EBITDA) to market value of Assets. Market value of asset can be calculated as market value of equity + book values of debt + preferred stock - cash.</td>
</tr>
<tr>
<td>Share repurchase</td>
<td>Share repurchase by company (i) at time (t)</td>
</tr>
<tr>
<td>Assets Turn over</td>
<td>Sales divided by the beginning-of-year asset market value.</td>
</tr>
<tr>
<td>Cash flow margin</td>
<td>EBITDA divided by sales.</td>
</tr>
<tr>
<td>Leverage</td>
<td>End-of-year market value divided by end-of-year equity market value.</td>
</tr>
</tbody>
</table>
FINDINGS

This data and test has been conducted by using Statistic and Data software (STATA) beginning with Descriptive analysis, Correlation test and followed by regression analysis of the model. Last but not least, a conclusion has been made based on the findings of this paper.

Descriptive Analysis

Table 2: Descriptive Statistics of the research

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>SR</th>
<th>AT</th>
<th>CFM</th>
<th>LEV</th>
<th>MTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>225</td>
</tr>
<tr>
<td>Mean</td>
<td>4.906044</td>
<td>11500000</td>
<td>0.6959111</td>
<td>0.2152991</td>
<td>63.84018</td>
<td>10119733</td>
</tr>
<tr>
<td>Median</td>
<td>4.33</td>
<td>523700</td>
<td>0.6</td>
<td>0.1524</td>
<td>45.37</td>
<td>0.83</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>7.677931</td>
<td>49800000</td>
<td>0.4587183</td>
<td>0.6759828</td>
<td>94.75005</td>
<td>1.063403</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.124679</td>
<td>6.967116</td>
<td>1.320848</td>
<td>10.37866</td>
<td>7.71553</td>
<td>4.238803</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>26.17021</td>
<td>58.41309</td>
<td>5.144739</td>
<td>148.0985</td>
<td>80.82791</td>
<td>29.48081</td>
</tr>
<tr>
<td>Minimum</td>
<td>-37.2</td>
<td>0</td>
<td>0.01</td>
<td>-3.048</td>
<td>-46.29</td>
<td>-0.94</td>
</tr>
<tr>
<td>Maximum</td>
<td>66.4</td>
<td>50800000</td>
<td>2.68</td>
<td>9.2877</td>
<td>1135.15</td>
<td>9.1</td>
</tr>
</tbody>
</table>

The table 2 above presents the summary statistic which include observation, mean value, median value, standard deviation, skewness, kurtosis as well as the value of minimum and maximum for each of the variables. By referring to the table above, there is 225 observation. For return on asset (ROA), which known as the dependent variable, the mean ratio is 4.906044, median is 4.33, standard deviation is 7.677931, skewness is 1.124679, kurtosis is 26.17021. The minimum value and maximum value are -37.2 and 66.4 respectively.

The central tendency of each variables can be measured by referring to their mean value. Based on the table above, share repurchase (SR) shows the highest mean value among the variables, which is 11,500,000. This means that the impact of share repurchase on the company’s value is strong. The mean value of asset turnover (AT) is 0.6959111 and the expected value for cash flow margin (CFM) is 0.2152991. Furthermore, leverage (LEV) and market-to-book ratio (MTB) give the average value of 63.84018 and 10119733 respectively.

Standard deviation can be used as an measurement to determine the variation of data.
are spread over a wider range if there is a high standard deviation, while a low standard deviation means that the data is concentrate to the expected value, which also known as the mean. From the table above, the standard deviation for share repurchase is 49,800,000, which consider as high standard deviation and the value is far away from the expected value. Furthermore, leverage and market-to-book ratio show high standard deviation with the value of 94.75005 and 1.063403 respectively. However, for asset turnover and cash flow margin, the standard deviations which are 0.4587183 and 0.6759828 respectively and are closer to zero. The difference between the minimum and maximum value in asset turnover variable shows value that is comparatively small, which is only 2.67. For asset turnover, the minimum value is 0.01 while the maximum value of it is 2.68. On the other hand, the other variables of this research shows greater range between the their minimum and maximum values, which include share repurchase, cash flow margin, leverage and market-to-book ratio. For share repurchase, the minimum value is equal to 0 while the maximum value of it is equal to 508,000,000. For cash flow margin, the values varies from -3.048 to 9.2877. Besides, the value for leverage varies from the minimum of -46.29 to the maximum of 1,135.15 while market-to-book ratio varies from -0.94 (minimum) to 9.1 (maximum).

**Pearson Correlation test**

Table 3 below shows the correlation results between the variables in this research. The dependent variable of this research is known as the performance of companies which measured by ROA. The independent variable is share repurchase (SR) and the control variables of this study include asset turnover (AT), cash flow margin (CFM), leverage (LEV) and market-to-book ratio (MTB).

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>SR</th>
<th>AT</th>
<th>CFM</th>
<th>LEV</th>
<th>MTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR</td>
<td>-0.0163</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AT</td>
<td>-0.068</td>
<td>-0.1757*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFM</td>
<td>0.2385*</td>
<td>0.0059</td>
<td>-0.1989*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-0.2235*</td>
<td>0.0861</td>
<td>0.0038</td>
<td>-0.0942</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MTB</td>
<td>0.2648*</td>
<td>-0.0356</td>
<td>-0.0515</td>
<td>0.0223</td>
<td>0.2752*</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3: Correlation test between variables.

Table 3 shows the overall correlation coefficients between the variables is low as each of the value did not exceed 0.8 results that there is weak correlation between the variables. Hence, they is no problem of multicollinearity exist in this model. By referring to the table above, share repurchase (SR), asset turnover (AT), and leverage (LEV) are negatively correlated to return on asset (ROA) where the correlation coefficients are -0.0163, -0.068 and -0.2235 respectively at 5% significance level. This means that these variables move in the opposite direction compare to that of ROA. However, cash flow margin (CFM) and market-to-book ratio result in positive correlation towards return on asset (ROA) which are 0.2385 and 0.2648 respectively at 5% significant level. This indicates that these two variables move in the same direction as ROA in the market.

In addition, based on Table 3, cash flow margin, leverage and market-to-book ratio show that their relationships with return on asset are significant at 5% significant level while share repurchase
and asset turnover show insignificant relationship with return on asset.

**Regression Analysis**

Table 4: Results for regression analysis.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent variable</strong></td>
<td></td>
</tr>
<tr>
<td>SR</td>
<td>0.00000000302</td>
</tr>
<tr>
<td></td>
<td>0.438</td>
</tr>
<tr>
<td><strong>Controlled variable</strong></td>
<td></td>
</tr>
<tr>
<td>AT</td>
<td>-0.952544</td>
</tr>
<tr>
<td></td>
<td>0.907</td>
</tr>
<tr>
<td>CFM</td>
<td>2.285531</td>
</tr>
<tr>
<td></td>
<td>0.008</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.0243712</td>
</tr>
<tr>
<td></td>
<td>0.036</td>
</tr>
<tr>
<td>MTB</td>
<td>2.480096</td>
</tr>
<tr>
<td></td>
<td>0.001</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>3.224191</td>
</tr>
<tr>
<td></td>
<td>0.014</td>
</tr>
</tbody>
</table>

N 225  
R-squared 0.2062

\[ \text{ROA}_{i,t} = 0.00000000302 \text{SR}_{i,t} - 0.952544 \text{AT}_{i,t} + 2.285531 \text{CFM}_{i,t} - 0.0243712 \text{LEV}_{i,t} \]
From the equation above, it shows that there is positive but insignificant relationship between return on asset (ROA) and share repurchase (SR). When there is an increase of 1% in share repurchase of the companies, the ROA of the company will increase by 0.00000000302%.

Besides, the equation shows a negative and insignificant relationship between return on asset (ROA) and asset turnover (AT). This indicates that when asset turnover (AT) increases by 1%, ROA of the company will decrease by 0.952544%. Furthermore, the equation shows that the relationship between return on asset (ROA) and cash flow margin (CFM) is positive and significant. This indicates that when CFM increase by 1%, the ROA of the company will increase by 2.285531%. For leverage ratio (LEV), the equation shows a negative but significant relationship between return on asset (ROA) and LEV. This means that when there is a 1% increase in LEV, there will be a 0.0243712% decrease in ROA of the company. From the equation, the market-to-book ratio (MTB) is significant and positively related to the return on asset (ROA) of the company. This means that if the MTB ratio increase by 1%, the ROA of the company will increase by 2.480096% as well.

The relationship between the dependent variable, independent variable and controlled variables in this research has been examined by using Statistic and Data software (STATA). The dependent variable of this research is known as return on asset (ROA) which has been used to measure the performance of the company. Besides, the independent variable of this research is share repurchase which measure in term of unit of shares. Moreover, this research also comprises four controlled variables which include asset turnover (AT), cash flow margin (CFM), leverage (LEV), and market-to-book ratio (MTB).

Based on the results, the relationship between ROA and share repurchase is positive but insignificant. This means that when the company increase the unit of shares repurchase, the performance of the company is expected to increase as well. This fulfill one of the relevant theories in this research which is signaling theory. Miller and Rock (1985) claimed that, share repurchases is usually used by the manager of a company to give signal about better prospects to the investors. It also reflects certain information such as profitability of the company to the investors. However, the findings of this research shows that share repurchase is insignificant to the ROA. This is align with the research from Ocal (2014) in which there are positive but not significant changes between share repurchase and the median performance companies.

Besides, there is negative yet insignificant relationship between asset turnover and company’s performance. This indicates that when the asset turnover of the companies decreases, the performance of the companies increase. The decrease in asset turnover of a company may be caused by the changes in amount of company’s asset sales or acquisition of asset. This result is align with Ocal (2014) in which the asset turnover is negative and insignificant to the performance of the company. However, this against the statement made by Nohel and Tarhan (1996) which stated that the asset turnover will become more significant after the repurchase of shares has been made by the companies.

Furthermore, the results shows that the cash flow margin of company is positive and significantly related to ROA of the company. This indicates that if there is an increase in the cash flow margin of companies, the ROA of the company will also increases. This results an increase in the performance of the companies as the ROA is one of the measurement for the performance of companies. This against the finding from Ocal (2014) in which there is insignificant relationship incurred between cash flow margin and share repurchase. However, a result of Nohel and Tarhan (1998) shows inconsistent result between these two variables. Moreover, the leverage shows a significant but negative relationship with the ROA which used to measure the performance of company. This indicates that the lower the leverage of the company, the higher the value can be created, hence, the better the performance of the company. Nohel and Tarhan (1998) claimed that there is an increase in leverage ratio of the company after it repurchase shares from the shareholders. However, this against the claim made by Ocal (2014) in which the leverage of companies decrease after they repurchase their shares from the market.
Last but not least, the result shows positive and significant relationship between market-to-book ratio and ROA. This indicates that when the market-to-book ratio of companies increase, the value of the companies increase as well. This could consequently reflect an increase in the performance of the companies.

CONCLUSION

Overall, base on the result of the study, it shows that there is a positive but insignificant relationship between share repurchase and the performance of listed companies on Bursa Malaysia which measured by the return on asset (ROA) of the companies. This finding is consistent with the research done by Ocal in 2014, which also claimed that the share repurchase is positive but not significant to the performance of companies. This also answered the second research question in this paper, which stated as is share repurchase impact return on asset (ROA) of company significantly? The answer for this question is no. There is positive but insignificant impact of share repurchase towards the return on asset (ROA) of the company.

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