LIQUIDITY AND ENERGY FIRMS’ PERFORMANCE IN MALAYSIA

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Abstract

This study scrutinizes the correlation between the parameters of energy firm performance and liquidity. The study’s specific objective and central purpose is to gain insights from the context of Malaysia. The process of collecting data focused on the energy firm, with the targeted duration stretching between 2005 and 2017. The database or website from which the data was gained was Thompson Data Stream, Bloomberg, and www.bursamalaysia.com. It is also notable that the study applied or employed a multivariate regression technique to discern the relationship between independent and dependent variables. Particularly, the independent variable constituted the performance of energy companies. From the findings, the study established that the relationship between the performance of energy companies and the parameter of liquidity is statistically significant.

Keywords: Liquidity, Cash Cycle, Energy Firm, Firm’s performance

I. Introduction

Given the liquidity of companies, its management forms a critical step relative to the successful management of the financial performance of the affected firm. Hence, financial managers ought to focus on this parameter. Imperatively, liquidity refers to the ease with which assets are converted into cash. The eventuality is that the attribute entails the process of managing funds that are readily accessible towards financing short-term investments of a given company. Also, liquidity touches on issues such as operating expenses and debt repayments. In situations where liquidity deficiency is reported, the implication is that a company is likely to experience challenges regarding the ability to service the obligations of other companies, as well as the current debts. It is also worth indicating that liquidity deficiency could cause financial crises such as bankruptcy and business failure [VIII]. The latter mixed outcomes point to the criticality of ensuring that the liquidity of a company is managed efficiently, upon which the shareholders’ value and firm profits are likely to be enhanced (Eljelly, 2004).

Several studies have examined the correlation between firm profitability and the potential predictive role of liquidity [1]. Despite these scholarly efforts, the extent to which the relationship holds for the case of the performance of energy companies is
yet to receive in-depth analysis. In the Malaysian context, there is rapid growth in the energy industry. The growth has led to an increase in the country’s economic performance. As such, it becomes important to steer successful management of liquidity. In this study, the central purpose is to determine the correlation between firm profitability and liquidity, with specific insights gained from Malaysia’s selected energy firms.

II. Literature Review

In one of the studies, [V] strived to discern the extent to which liquidity affects company profitability. Parameters that were used included the cash gap and current ratio. Focusing on the Saudi Arabian context, the study collected data from 29 companies participating in the stock exchange. The target period entailed data for the years stretching from 1996 to 2000. From the results, there was a statistically significant correlation between firm liquidity level and profitability. Correlation analysis and current ratio parameters were used to gain these insights. It was also noted that the relationship tends to be clearer in situations involving companies with longer cash conversion cycles and higher current ratios.

In another scholarly investigation, [IV] focused on manufacturing companies in the U.S. context. Data was collected from 833 small firms operating in the retail sector. The period on focus was between 2003 and 2004. From the results, it was observed that the level of liquidity of a firm affects its cash conversion cycle. A similar observation was made when the parameter of the invested capital was analyzed. Also, the study indicated that when a company exhibits a more efficient cash conversion cycle, it is likely to be more liquid, translating into higher returns — while requiring less equity and debt financing. Additional findings demonstrated that most of the managers or owners of small companies are more likely to be reactive relative to the management of cash conversion cycles.

In the investigation by [I], results suggested that aspects of net and gross operating profit and the cash conversion cycle exhibit a significant negative correlation. However, there was a positive correlation between the net and gross operating profit and current ratio. The results demonstrated that aspects of profitability and liquidity tend to reinforce each other, deviating from the traditional management theory concerning the working capital. The correlation between firm profitability and size and the aspect of cash conversion cycle. The research context involved companies listed on the Istanbul Stock Exchange. The target data involved company reports or information for the year 2007. Indeed, Pearson correlation and ANOVA analyses were used to gain critical insights into the subject under investigation. From the results, it was documented that the aspects of firm profitability and size and the parameter of cash conversion cycle exhibit a significant negative relationship. From these previous scholarly investigations, the current study’s hypotheses are formulated and stated as follows:

- Aspects of ROA and liquidity choices exhibit a direct relationship
- There is a correlation between the parameters of liquidity choice and EPS
- There is a positive relationship between liquidity choices and the ROC parameter
III. Methodology

As mentioned earlier, the central objective of the study is to determine the relationship between liquidity and the performance of energy companies in the Malaysian context. The size of the sample entails 30 firms listed publicly in Bursa Malaysia. The target period stretches between 2005 and 2017, with annual data on the focus. Locations from which the data was collected included the Bloomberg software, central bank, the selected companies’ annual reports, and Thompson Reuters. The table below summarizes the study’s variables and their associated proxies.

Table 1: Summary of the study’s selected independent and dependent variables

| Variables                  | Proxies or performance parameters |
|----------------------------|-----------------------------------|
| **Dependent variable**     | ROCA, ROA, EPS                   |
| Performance of energy      |                                   |
| companies                  |                                   |
| **Independent variable**   | CC, TIE, CR, QR                   |
| Company liquidity          |                                   |

Given that the main parameters on the focus involved company liquidity and the performance of energy companies, the study applied the multiple regression framework. The framework’s equation was in the form:

\[
ROA_{it} = \beta_0 + \beta_1 Q_{1it} + \beta_2 CR_{2it} + \beta_3 TIE_{3it} + \beta_4 CCC_{4it} + \epsilon_{it} \tag{1}
\]

\[
EPS_{it} = \beta_0 + \beta_1 Q_{1it} + \beta_2 CR_{2it} + \beta_3 TIE_{3it} + \beta_4 CCC_{4it} + \epsilon_{it} \tag{2}
\]

\[
ROC_{it} = \beta_0 + \beta_1 Q_{1it} + 2\beta_2 CR_{2it} + 3\beta_3 TIE_{3it} + 4\beta_4 CCC_{4it} + \epsilon_{it} \tag{3}
\]
IV. Results and Discussion

The analysis of the relationship between independent and dependent variables was achieved through regression analysis. On the one hand, the dependent variables constituted parameters such as the return on capital, earnings per share, and return on asset. On the other hand, independent variables constituted attributes such as the cash cycle, times interest earned, current ratio, and quick ratio. The level of significance was set at $\alpha=0.05$.

i) THE RELATIONSHIP BETWEEN CC, TIE, CR, AND QR AND ROA

From the results in Table 2, given a level of significance of 0.01, parameters of TIE and CR exhibit a positive correlation with ROA; depicted by +5.169 and +4.367 respectively. However, these parameters exhibit a negative relationship with CC and QR, with the results depicted by values of -3.760 and -4.262 respectively. The eventuality is that the liquidity level of a company poses an effect on company profitability relative to ROA. Given 0.286 as the R-square value, the implication is that across the target variables, a weak relationship is evident. Indeed, only 28.60% of ROA variation amount is attributed to CC, TIE, CR, and QR parameters. With a negative relationship with CC documented, the implication is that the firm’s profitability could only be supported in situations involving shorter CC. Indeed, shorter CCs are seen to steer improvements in working capital management efficiency, translating into a company’s improved financial health. In the studies by [X] and [III], negative relationships between CC and company profitability were documented. The eventuality is that when CC is shortened, there is likely to be an improvement in company liquidity efficiency, hence increased profitability [VII]. This study’s findings concerning the CR parameter concurred with those reported by Ofoegbu, Duru and Onodugo, (2016), which pointed to a positive correlation between CR and ROA. As such, the resultant inference is that in Malaysia, an energy company’s profitability is likely to be boosted if higher CR is maintained.

Table 2: Results for return on asset

|          | Coefficients | t     | p-value |
|----------|--------------|-------|---------|
| (Constant)| .149         | 4.600 | .000    |
| QR       | -.313        | -4.262| .000    |
| CR       | .340         | 4.367 | .000    |
| TIE      | .051         | 5.169 | .000    |
| CC       | -.067        | -3.760| .000    |
| R        | .535         |       |         |
| R-square | .286         |       |         |
| F-Value  | 11.329(0.000)|       |         |

$ROA_{it}=149 -0.313QR_{1it} +0.304CR_{2it} +0.517TIE_{3it} -0.067CC_{4it} + \epsilon_{it}$ \hfill (1)
ii) THE RELATIONSHIP BETWEEN CC, TIE, CR, AND QR AND ROC (RETURN ON CAPITAL)

Regarding the ROC parameter, results in Table 3 demonstrate that there is a significant positive correlation between the parameters of TIE and CR and ROC. Values that depict these correlations are +5.8290 and +.1230 respectively, with the level of significance set at 0.01. On the other hand, the table suggests a negative correlation between the parameters of CC and QR and ROC. At a 0.01 level of significance, values that depict these correlations stand at -2.6810 and -2.6100 respectively. With a very low adjusted R-square value (0.2820), the results demonstrate that changes in the ROC are likely to be 28.20%, arising from liquidity level changes. For the rest of the 71.80% of changes, they are explained by factors external to the liquidity model. Hence, shorter CC are poised to enhance ROC in energy companies in Malaysia.

Table 3: Results for return on capital

| Coefficients | t    | p-value |
|--------------|------|---------|
| (Constant)   | .068 | 3.419   | .001 |
| QR           | -.117| -2.610  | .010 |
| CR           | .148 | 3.123   | .002 |
| TIE          | .035 | 5.829   | .000 |
| CC           | -.029| -2.681  | .008 |
| R            | .531 |         |      |
| R-square     | .282 |         |      |
| F-Value      | 11.106 |       | 0.000 |

\[ ROC_{it} = 0.068 -0.117QR_{it} + 0.148CR_{it} +0.035TIE_{it} -
0.029CC_{it} + \varepsilon_{it} \quad (3) \]

iii) THE RELATIONSHIP BETWEEN CC, TIE, CR, AND QR AND EPS

Based on the results illustrated in Table 4, the research hypothesis for the EPS variable is confirmed. In particular, there is a significant positive correlation between TIE and QR and EPS, with the associated values explaining these relationships standing at +1.8110 and +0.5310 respectively. However, aspects of CC and CR exhibit a significant negative correlation with EPS, depicted by values of -4.9660 and -0.0230 respectively. When the adjusted R-square value is considered, which stands at 0.2250, it is low and indicates that in the EPS, only 22.50% of changes tend to occur based on the variable of liquidity. The rest of the changes, standing at 77.50%, are seen to arise from factors outside the framework.

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Table 4: Results for earning per share

|       | Coefficients | t     | p-value |
|-------|--------------|-------|---------|
| (Constant) | 1.101        | 5.847 | .000    |
| QR    | .234         | .531  | .596    |
| CR    | -.011        | -.023 | .982    |
| TIE   | .109         | 1.811 | .073    |
| CC    | -.513        | -4.966| .000    |
| R     |              | .475  |         |
| R-square |            | .225  |         |
| F-Value |              | 7.556(0.000) |         |

\[ EPS_{it} = 1.101 + 0.2347QR_{i,t} -0.11CR_{i,t} +0.109TIE_{i,t} -0.513CC_{i,t} + \varepsilon_{i,t} \quad (2) \]

V. Conclusion

In summary, this study has examined the correlation between liquidity and the performance of energy companies in Malaysia. From the regression analysis outcomes, the three hypotheses are supported, with the level of significance set at 0.01. Specifically, the hypotheses are supported based on the impact of various parameters on EPS, ROC, and ROA. Hence, a null hypothesis that would suggest that the regression coefficients stand at zero is worth rejecting, given 0.01 as the level of significance. The implication for companies in the energy industry is that liquidity needs to be managed efficiently because it determines the financial health of firms, hence their performance. However, the limitation of the study is that the findings were based on a small sample size. In future, there is a need for scholarly investigators to consider other factors and more companies within and outside the energy industry, upon which valid and reliable generalizations could be made; having gained data from a large or adequate sample size that proves representative.

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