

Does Enterprise Risk Management Create Value

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Abstract—This research paper examines whether the enterprise risk management (ERM) practices can create value to Malaysian public listed companies (PLCs) in Malaysia. The sample consists of 417 PLCs in Malaysia. The analysis focuses on the companies' financial characteristics by using stepwise multiple regressions. This research ventures into understanding the influence of financial ratios and risk management on shareholders wealth. The findings show that return on equity, opacity, debt over asset, operating margin, cost of financing and taxation, and financial slack are significant for financial companies. While, only return on asset is significant for financial companies. This is could be due to the nature of financial companies that are highly regulated.

Index Terms—enterprise risk management, shareholder value, corporate governance, public listed companies, Malaysia

I. INTRODUCTION

The disintegration of traditional risk management (TRM) and also the influences of external and internal factors to business risks, as well as the rapid growth of economies, have triggered more demand and enforcement of effective risk management by most countries. It is widely accepted that effective risk management is the core of successful companies, regardless of size or industry sector. A series of company failures, corporate scandals, and frauds are other reasons for companies to effectively implement risk management.

In Malaysia, the 1997 Asian financial crisis had affected one tenth of the 800 public-listed companies on the Bursa Malaysia and poor risk management was cited as a major factor of the companies' failure [1]. This has caused more severe corporate governance problems in publicly listed companies. The problems include ineffective board of directors, and lack of awareness and responsibilities among members of the boards.

Subsequently, after the crisis, the issue of corporate governance has received much attention in Malaysia where the government directly emphasized the listed companies

to be more proactive in controlling risk and maintaining good reporting. In the Malaysian Code on corporate governance 2000, risk management initiative has been integrated as one of the important part of corporate governance code and has been cited as a key responsibility of the board of directors.

The Code is incorporated into the new Bursa Listing Requirements and it is applied to all PLCs in Malaysia. The PLCs are required to disclose their Risk Management, Internal Control and Corporate Governance Guidelines in the annual report to ensure the transparency in delivering information to their shareholders, stakeholders, and other related bodies.

However, financial companies are highly regulated compared to other types of companies [2], [3]. This is because they are exposed to financial risk, which is more complex and requires a broad skill and knowledge with specific tools to manage risks. Corporate governance compliance has been cited as the most motivation factor for non-financial companies to implement ERM [4].

Effectively managing or controlling the factors that cause risk can result in market leadership, increasing a company's growth and investor confidence [5]. Corporate entities believe that the successful operation of any business depends on risk management [6]. This has been highlighted as in [7], that there is evidence in terms of theories that show how value can be created from the adoption and application of risk management and how risk can also destroy corporate value.

Shareholder value is a financial indicator that has been used as a measurement of reference to the successful implementation of ERM practices. Reference [8] (p.38) noted that ERM "must be 'measurable' and the value proposition will assist companies to create competitive advantage, improve business performance and reduce cost". Several research findings agreed that ERM implementation can reduce the overall risk profile by reducing the cost of capital and increasing the company's performance, and these will lead to maximise shareholder value [9]. Reference [10] found that ERM helps companies to manage the bottom line and increases shareholder value by increasing earnings growth, revenue growth, return on capital, earning consistency, and reducing expenses.

Earnings growth and revenue growth are the top business issues [11].

With regard to the ERM practices, there is almost no direct empirical evidence that shows value to be created by ERM and the link is more theoretical rather than being proven by hard empirical fact [12]. This is aligned with the statement as in [13], where there is no prior study has considered the value relevance of ERM practices. Reference [14] found that only some firms that adopted ERM experience a reduction in earnings volatility and the overall study failed to find support that ERM is value creating. Other prior studies have only found empirical evidence of a positive relationship between specific forms of risk management and firm's value. Thus, this study is intended to examine whether ERM practices and corporate governance compliance can influence shareholder value among Malaysian public listed companies.

II. ERM CONCEPT AND VALUE CREATION

There are four important issues in the ERM concept. Firstly, ERM views risk as being more complete, consistent, and collective rather than focusing only on hazard or financial risk [15]. It engages with all types of risk, which are currently faced by business organisations. The risks are commonly categorised as hazard risk, financial risk, operational risk, and strategic risk [16]-[18].

Secondly, ERM is a process. Refer to the reference number, as in [19], ERM is a framework that involves a process of identifying, defining, quantifying, comparing, prioritising, and treating all types of risks facing an organisation. Reference [19] added that the ERM process requires a wide range of tools and methodologies, which helps to explain the relationship between risk profile and its impact on shareholder value.

Thirdly, the ERM involves the overall human resource, that is, people at all levels of the entire organisation. The ERM programme is initiated by the board of directors and they are primarily responsible for risk management activities in order to safeguard a company's asset. The successful implementation of ERM highly depends on the efficiency and the effectiveness of the management, where it is required to identify and evaluate the company's risks and to design, operate, and control an internal control system to address those risks [20]. The employees, as bottom level staff, also play an important role in ERM implementation. They are responsible for the daily operation of the internal control system. In essence, ERM is not just about responsibilities, but it is the way how people work and the way they relate to the strategy and growth in order to achieve the company's objective [21].

Finally, the ERM underlying concept is that each type of organisation whether profit, non-profit, or government agency, provides value for its stakeholders [22]. This had been stressed in the definitions of ERM and in the ERM concept itself. The ERM definition as in [23] showed the important role of ERM in creating shareholder value in an organisation. This is agreed by other reference number, as in [24] that the function of ERM is to drive value creation, either in terms of financial and non-financial aspects.

Even though shareholder value has been stressed as the most significant impact of ERM implementation by many authors and researchers, the increase in shareholder value does not necessarily mean that the organisational risk management programme has been successfully implemented and has achieved the objectives. According to the reference number, as in [25], the contribution of risk management to shareholder value has been discussed widely, especially in financial risk management. Reference [25] analysed the theoretical argument between financial risk management and value creation and proved it in terms of empirical evidence. The study had showed that risk management at the company level represents a means to increase shareholder value. Reference [26] also discovered that investors valued company specific risk management activities. However, there is only a little empirical support to theories that showed risk management as a means to maximise shareholder value.

III. METHODOLOGY

The public listed companies (PLCs) were selected as the population of this study for the reason that normally ERM is adopted by the larger organisations, such as the PLCs and multinational companies. Furthermore, the PLCs would have to exercise the best practice of corporate governance under the Malaysian Code of Corporate Governance and Bursa Malaysia Listing Requirements where risk management is part of it.

The selection of the companies was based on random alphabetical of listed companies in the 2010 Bursa Listed Companies Schedule. Nonetheless, all financial companies (49 companies) are included in this study, in which they are treated as placebo (control) samples. The primary reason for employing these companies as control samples is because they are highly regulated as compared to other types of companies.

Table I shows the overall number of companies in this study (417) which is roughly 43.81 percent of the whole population. It comprises of 49 financial companies or 11.8 percent from the total sample of this study.

TABLE I. SAMPLES BY SECTOR

| Sector | Frequency | Percent | Cumulative Percent |
|--------------------------|-----------|---------|--------------------|
| Construction | 19 | 4.6 | 4.6 |
| Consumer | 44 | 10.6 | 15.1 |
| Finance (Placebo) | 49 | 11.8 | 26.9 |
| Hotels | 3 | 0.7 | 27.6 |
| Ind-Pod | 102 | 24.5 | 52.0 |
| IPC | 2 | 0.5 | 52.5 |
| Plantation | 22 | 5.3 | 57.8 |
| Properties | 79 | 18.9 | 76.7 |
| Reits | 16 | 3.8 | 80.6 |
| Technology | 9 | 2.2 | 82.7 |
| Trade and Services | 72 | 17.3 | 100.0 |
| Total | 417 | 100.0 | |

For the purpose of this study, stepwise multiple regressions are considered the most appropriate analysis. The analysis focuses on the companies' financial characteristics which include leverage, net profit margin, returns on asset, returns on equity, financial slacks, and intangible assets and cost of financing and taxation (CFT). The model can be written as follows:

$$EPS = a_0 + b_1 D/A + b_2 CFT + b_3 NPM + b_4 ROA + b_5 ROE + b_6 SLK + b_7 OPC + \varepsilon$$

where,

- EPS = earnings per share
- D/A = total debt over total asset
- CFT = cost of financing and taxation
- NPM = net profit margin
- ROA = returns on asset in current year
- ROE = returns on equities in current year
- SLK = cash and securities in hand
- OPC = total intangible asset
- ε = error terms

IV. FINDINGS AND DISCUSSION

TABLE II. SUMMARY OF RESULT FOR SHAREHOLDER WEALTH OVERALL SAMPLE MODEL

| Variable | Predicted Sign | Coefficient | Standard Error | t | Significance Level |
|-------------------------|----------------|---------------------|----------------|--------|--------------------|
| (Constant) | | .060 | 3.159 | 3.159 | .002 |
| ROE | + | .126 | .039 | 6.258 | .000 |
| ROA | + | .136 | .000 | 6.848 | .000 |
| Opacity | - | .125 | .286 | 6.283 | .000 |
| Slack | +/- | .085 | .224 | 4.064 | .000 |
| D/A | - | -.061 | .153 | -2.846 | .004 |
| Adjusted R ² | | 0.066 | | | |
| F-Value | | 34.675 ^a | | | |
| Durbin-Watson | | 1.65 | | | |
| N | | 2872 | | | |

Predictors: (Constant), Total Debt upon Total Asset (D/A), Cost of Financing and Taxation (CFT), Net Profit Margin (NPM), Return on Asset (ROA), Return on Equity (ROE), Near Liquid Asset (SLK), Total Intangible Asset (OPC)

Dependent Variable: EPS

Note: the expected sign. ^a, is 1% significance level

Table II illustrates the test result for the overall sample for this study testing the relationship between several aspects of risk management (in the financial ratios form) and shareholders wealth. It is found that several variables (5 out of 7) having significant relationships with shareholders wealth (EPS). Based on the results, the stepwise regression equation was as follows:

$$EPS = a_0 + b_1 ROE + b_2 ROA + b_3 OPC + b_4 SLK + b_5 D/A + \varepsilon$$

The adjusted r-square for this model is 6.6 percent and the F-value is 34.675. The F statistics which is significant at the one percent level implies collectively, the variables have significant impact on EPS. Nonetheless, only 6.6 percent of variation in shareholder wealth (EPS) could be

explained by variance of return on equity (ROE), return on asset (ROA), opacity, financial slack and debt over asset. The result is in line and as mooted with the previous study that there is only a little empirical support that showed risk management influenced the shareholder wealth.

As anticipated, all variables have the exact signs as predicted except for opacity. It is expected, higher opacity ($\beta = -0.125$, $p < 0.05$) to decrease EPS as opacity is an investment into intangible (opaque) asset. Opaque assets are known not to produce valuable asset during bankruptcy or financial distress. Nonetheless, the result does not support the above explanation. Hence, investment in opacity is in contrast to asset risk management.

TABLE III. SUMMARY OF RESULT FOR SHAREHOLDER WEALTH NON-FINANCIAL SAMPLE MODEL

| Variable | Predicted Sign | Coefficient | Standard Error | t | Significance Level |
|-------------------------|----------------|---------------------|----------------|---------|--------------------|
| (Constant) | | | .058 | 3.817 | .000 |
| ROA | + | -.283 | .001 | -14.563 | .000 |
| ROE | + | .108 | .038 | 5.187 | .000 |
| Opacity | - | .124 | .270 | 6.309 | .000 |
| D/A | - | -.063 | .146 | -3.003 | .003 |
| OPM | + | .092 | .113 | 3.724 | .000 |
| CFT | - | -.061 | .045 | -2.530 | .011 |
| Slack | +/- | .050 | .239 | 2.406 | .016 |
| Adjusted R ² | | 0.134 | | | |
| F-Value | | 51.764 ^a | | | |
| Durbin-Watson | | 1.813 | | | |
| N | | 2499 | | | |

Predictors: (Constant), Total Debt upon Total Asset (D/A), Cost

Dependent Variable: EPS

Note: the expected sign. ^a, is 1% significance level

Result for Non-financial companies sub-sample model (Table III) produces an adjusted r-square of 13.4% with F-value at 51.764 and significant at $p = 0.001$. It is found that all variables tested are significant and the stepwise regression equation was as follows:

$$EPS = a_0 + b_1 ROA + b_2 ROE + b_3 OPC + b_4 D/A + b_5 OPM + b_6 CFT + b_7 SLK + \varepsilon$$

The findings showed that return on asset (ROA) was the most important factor in explaining the shareholder wealth, and this is followed by return on equity (ROE), opacity (OPC), debt over asset (D/A), operating margin (OPM), cost of financing and taxation (CFT), and cash and security in hand (SLK). The value of $R^2 = 0.134$ indicated that these two EWRM critical success factors included in the regression equation explained only 13.4 percent of the variation of the shareholder value. This indicated that the ERM was not the main factor that contributes to shareholder value.

Nevertheless, two of the variables are not conforming to the predicted signs. Both asset management ratio (ROA and Opacity) suggest that non-financial companies' shareholders wealth negatively related to efficient asset management. This implies that companies to be less

efficient in asset management to enhance companies' shareholder wealth.

Moreover, it is found that cash management (cost of financing and taxation (CFT) and cash equivalent asset (Slack) are significant contributing variables in enhancing shareholder' wealth. These two variables pose a risk to shareholders wealth if not well managed. CFT is cash flow that does not enhance companies' value; and financial slacks are non-invested companies' cash. Nonetheless, stepwise regression included these variables to be the last and least influential variables in determining shareholders' wealth. From the researcher's points of view, this result is due to indifferent sectorial classification causing the effect of cash management to subside as a strong determinant to shareholders' wealth.

In light of companies riskiness measured by total debt upon total asset (D/A) ($\beta = -0.063, p < 0.05$), test result finds the variable to be influential and align with known knowledge to have a negative impact to shareholders wealth. Lastly companies operating margin (OPM) a measure of internal operational risk management, it is found that it is tested significant and the impact it produces is as expected as a substantial influential variable.

The overall results indicated that the risk management practices in non-financial companies are likely to be affected by accounting ratios and corporate governance compliances. The results supported the previous finding as in [17] that the MCCG compliance as a driven factor for non-financial companies to implement ERM.

TABLE IV. SUMMARY OF RESULT FOR SHAREHOLDER WEALTH FOR FINANCIAL SAMPLE MODEL

| Variable | Predicted Sign | Coefficient | Standard Error | t | Significance Level |
|-------------------------|---------------------|-------------|----------------|-------|--------------------|
| (Constant) | | | .217 | 4.545 | .000 |
| ROA | + | .503 | .000 | 4.840 | .000 |
| Adjusted R ² | 0.243 | | | | |
| F-Value | 23.423 ^a | | | | |
| Durbin-Watson | 2.023 | | | | |
| N | 373 | | | | |

Predictors: (Constant), Total Debt upon Total Asset (D/A), Cost of Financing and Taxation (CFT), Net Profit Margin (NPM), Return on Asset (ROA), Return on Equity (ROE), Near Liquid Asset (SLK), Total Intangible Asset (OPC)

Dependent Variable: EPS

Note: the expected sign. ^a, is 1% significance level

Result for financial companies sub-sample model (Table IV) produces an adjusted r-squared of 24.3% with F-value at 23.423 and significant at $p = 0.001$. It is found that only one variable (Return on Asset, ROA) tested to be significantly influencing shareholders' wealth. As mentioned before, that financial companies are highly regulated compared to other types of companies, all financial listed companies in Bursa Malaysia are strictly governed by Bank Negara (Central Bank) and also by other

rules and regulations. Thus it is not surprising that ROA dictates shareholders' wealth in this sub sample.

V. CONCLUSIONS

The aim of this study is to examine whether the enterprise risk management (ERM) practices and corporate governance compliance can create value to Malaysian public listed companies (PLCs). The risk management practices and corporate governance compliance have an effect on shareholder value only on certain aspect of risk management variables. The financial companies where their risk management practices are more advanced and are highly regulated as compared to non-financial companies are found to be less affected by the corporate governance compliance. This is due to the fact that the ERM implementation in financial companies is not just for compliance but also for the best practice and survival. As for non-financial companies, almost all variables were found to have an impact on shareholder value. This indicates that the ERM implementation in non-financial companies is for the purpose of compliances. The overall results show that the coefficients of determination of the analyses were small, although they were significant, which indicated that the ERM was not the main factor that led to value creation.

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