

The Role of the Quality Internal Adult Support in Enterprise Risk Management (ERM) Practices: Evidence from Malaysia

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Abstract

The research examines the factors associated with the level of adoption of Enterprise Risk Management (ERM) among public listed companies in Malaysia. This study highlighted how far the quality of Internal Audit Support (IAS) influences the relationship between factors influencing Level of ERM Adopting and Level of ERM Adoption.

Design/methodology/approach

Binary Logistic Regression was conducted to test the hypothesis on surveyed firms selected from the seven industries listed on the main board of Malaysian Bourse.

Findings

An interesting finding from this study is the positive correlation between all the variables was statistically significant in the adoption of ERM.

Practical implications

This study will be able to shed some insights into the ERM activities of multinationals from a developing country's perspective by identifying the level of stages that Malaysian public listed companies are adopting ERM.

Originality/value

Studies of the management of Enterprise Risk by multinationals from developing countries, including Malaysia meanwhile, have been scarce. This research aims to fill this research gap by analyzing the management of risks in Malaysian multinationals, with a special focus on ERM.

Keywords: Enterprise Risk management, Internal Audit Support, Board of Director, Chief Risk Officer.

Introduction

Companies in the 21st century face a formidable array of risks. Driving forces like technology advances and the Internet, global competition, complex financial instruments, mergers, downsizing, deregulation and increased consumer demands all create a riskier operating environment for organization (Shenkir & Walker, 2006). Then, recent business failure such as due to senior level misjudgments, mismanagement of risk and changes in corporate governance requirements are increasing stakeholder expectations for senior executives and board of directors to effectively manage all risks that exist in an organization. Malaysian multinationals companies are deeply affected by intolerance of mismanagement of risks in the organization (Yazid & Muda, 2006). An example would be as Tenaga National Bhd. (TNB), the national power utility which suffered foreign exchange losses of RM1.29 billion in 1997 (Financial Times, November 8, 1997). These losses increased to RM2.47 billion for the first six months after the crisis began.

Malaysia Airline System (MAS) suffered from similar losses of between RM300 million to RM400 million for the first six months of 1998 due to its foreign debt of about RM3.16 billion (Financial Express, November 28, 1998). Most of this debt (90%) was in US dollars. TELEKOM also suffered from translation losses worth RM158 million in 1997 (Agence France Presse, March 4, 1999). Finally, Yeo Hiap Seng Bhd. suffered foreign exchange losses worth RM4.4 million for the financial year ending December 31, 1997 (Bernama, March 5, 1998). The concept of risk management has become central to corporate governance (Yatim et al., 2006). In the broadest sense, according to Cornelius (2005) corporate governance can be defined as the stewardship responsibility of corporate directors to provide oversight for the goals and strategies of a company and to encourage their implementation. Zingales (1998) views governance systems as the complex set of constraints that shape the ex post bargaining over the quasi-rents generated by the firm. Whereas Gillan and Starks (1998) define corporate governance as the system of laws, rules and factors that control operations at the company. In addition, Shleifer and Vishny (1997) define corporate governance as the ways in which suppliers of finance to corporations assures themselves of getting a return on their investment.

Irrespective of the particular definition used, creating risk management mechanism increase risk awareness and this increase in awareness and knowledge allows for more sound decision making. Hence, good corporate governance is developing from command and control dictums to a more proactive and continuous process that assesses, sources, measures and manages risk across the firm and absolutely can help create shareholder value. A recent trend in corporate governance has been the development of an integrated, enterprise-wide approach to assessing the business risks that can impact in organization's ability to achieve its business objectives and to develop programs for managing those risks (Miccolis et al., 2001). In response, many organizations believed the importance of risk management in business enterprise (Mikes, 2005). Smith et al. (1997) gave a common sense definition of risk management as any set of actions taken by individuals or corporations in an effort to alter risk arising from their primary line(s) of business. Traditionally, companies have managed risk implicitly or in "silo" or "stovepipe" approach, where risks are often managed in isolation (Beasley et al., 2005). However, management in growing number of organizations recognizes that this approach is no longer an effective way to manage the myriad forms of risks they face (Shenkir & Walker, 2006).

There has been dramatic change in the role of risk management in corporation (Nocco & Stulz, 2006). Twenty years ago, risk management often denoted the task associated with the purchase of insurance. Treasurers also performed risk management tasks but they focused mostly on hedging interest rate and foreign exchange risks. Over the last ten years, many companies have taken into account additional types of risk. In particular, they started to pay much attention to operational risk and reputation risk. In response to the increasing number and types of risks today's firms face, leading corporations in the U. S such as GE, Wal-Mart, Bank of America and IBM (Drew et al., 2005) have begun to adopt Enterprise approaches to risk management (ERM). In Malaysia, many companies are looking forward to implement the ERM program to their organizations. It can be seen by training created by most of the multinational companies such as Malaysian National Reinsurance Berhad (MNRB) and seminar workshop on ERM organized by Texchem Group of company (Texchem Group: News updates, www.texchem.com.my). ERM is a relatively new term that is quickly viewed as the ultimate approach to risk management. It is designed to increase the boards and senior management's ability to oversee the portfolio of risks facing an enterprise (Beasley et al., 2006). ERM provides a significant source of competitive advantage for those who can demonstrate a strong ERM capability and strength (Stoh, 2005).

Unlike traditional risk management where individual risk categories are separately managed in risk "silos" or "stovepipe", ERM enables firms to manage a wide array of risks in an integrated, holistic fashion (Liebenberg & Hoyt, 2003). ERM also seeks to strategically consider the interactive, effects in various risk events with the goal of balancing an enterprise's entire portfolio of risks to be within the stakeholders' appetite or tolerance for risk (Beasley et al., 2005). It also takes an enterprise – wide focus by strategically looking at risks in a coordinated, consistent manner because the ultimate goal is to ensure that the value of the enterprise is preserved and even enhanced. ERM has emerged as a new paradigm for managing the portfolio of risks that face organization. Policy makers continue to focus on mechanism to improve corporate governance and risk management. Kleffner et al. (2003) examined characteristics of Canadian companies and their ERM adoption status. Companies adopting ERM cited "the influence of the risk manager (61%), encouragement from the board of directors (51%) and compliance with Toronto Stock Exchange (TSE) guidelines (37%)" as the key factors causing their adoption of ERM. Beasley et al. (2005) contributes to the emerging stream of research on ERM adoption by exploring organisational factors associated with an entity's stage of ERM adoption.

Based on data gathered from 123 organizations, they found that the stage of ERM implementation to be positively related to the presence of a chief risk officer, board independence, CEO and CFO apparent support for ERM, the presence of a Big Four auditor, entity size and entities in the banking, education and insurance industries. An exploratory survey of corporate ERM practices in 2004 by Gates (2006) at North America, Continental Europe and UK found that only 11% of companies claimed to have fully implemented comprehensive ERM programs. At the same time, 22% represented themselves as "actively in the process", while 23% reported being "in the planning and preparation phase". Two-thirds of the respondents said they believe that their board members consider ERM to be "significant" or "very highly significant". The results also reported that most ERM efforts are still in the early stages. Liebenberg and Hoyt (2003) used Chief Risk Officer (CRO) appointments to examine the determinants of ERM adoption. The authors found that companies with greater financial leverage are more likely to appoint a CRO. Despite all of the talk about ERM in the trade press, evidence indicates that it is still not widely practiced and empirical evidence regarding the determinants of these programs is lacking. For example, a 2001 study by the Economist Intelligence Unit found that 41 percent of companies in Europe, North America and Asia had implemented some form of ERM, but when looking at just North America, the number drops to 34 percent (Kleefner et al., 2003). Why is ERM not common in practice?

Some reasons may include organizational structure that are not conducive to ERM, individuals, who do not want to give up their specific responsibilities, a lack of understanding regarding how to effectively implement ERM and measure its benefits, and difficulties in measuring risk and correlations across risks in the company (Kleefner et al., 2003). Since ERM is a relatively recent activity and has yet to be fully implemented in most companies, there has been little academic research about its accomplishments and about the obstacles to further progress. In particular, very little has been published about corporate attempts to identify and manage corporate strategic risks while integrating them into a corporate-wide ERM framework (Gates, 2006). Many researchers (Beasley et al, 2005, 2006; O'Donnell, 2005; Banham, 2004; Gates, 2006) have widely recognized the critical role of ERM has emerged as a new paradigm for managing the portfolio of risks that face organizations. While ERM is on the rise, not all organizations are adopting it. Little is known about why some organizations acknowledge ERM while others do not. To date, most of the literature on ERM has focused on developed countries. Very little attention has been directed to this subject in developing countries, including Malaysia. Studies of the management of Enterprise Risk by multinationals from developing countries, meanwhile, have also been scarce.

This research aims to fill this research gap by analyzing the management of risks in Malaysian multinationals, with a special focus on ERM. Therefore, this study attempts to investigate whether companies in Malaysia adopt ERM in their workplace, what are the factors influencing them to adopt ERM in their organization and what is the level of ERM adoption in their organization. The study will verify whether existence of quality of Chief Risk Officer (CRO) and quality of Board of Directors (BOD) will influence the level of ERM adoption in public listed companies in Malaysia. Results of the study will prove helpful to Malaysia Bourse, Securities Commission and also to the public listed companies themselves. Furthermore, the study will also be able to determine whether the existence of Internal Audit's Practice in Malaysia have an interaction to influence the organization to adopt ERM in practice. As a result, the discussion would enable others to learn and benefit from the experience by the chosen samples (89 Multinational Companies from the Main Boards of Bursa Malaysia) from this study. The study is structured as follows: First, a summary of literature on the concept of ERM the Quality of Internal Audit Support. Second, the methodology and sample are both described. Third, the findings are thoroughly discussed and finally the conclusion is provided by summarizing the results discussing avenues for future research.

Literature Review

Agency theory is widely taught in management schools and it originates from the fields of the financial economics literature (Ross, 1973; Jensen & Meckling, 1976; Arrow, 1985). The theory is an analytic expression of the contractual relationship of two or more parties, in which one party, designated as the principal, engages another party, designated as the agent, to perform some service on behalf of the principal (Ross, 1973; Jensen & Meckling 1976). In return for his or her efforts, the agent usually receives payment of some kind from the principal. Kaiser (1999) also exemplified that agency theory also focuses on the ways principals try to mitigate the problem by selecting certain types of agents and forms of monitoring of their actions using various amounts and types of positive and negative sanctions. This theory related with the focus of this study because ERM can help an organization achieve its business objectives and maximize shareholder value (Bowen et al, 2006; Nocco & Stulz, 2006). ERM is, in essence, the latest name for an overall risk management approach to business risks. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines ERM as:

“... a process affected by an entity's board of directors, management and other personnel, applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity goal.”

Based on the above definition, ERM reflects certain fundamental concepts whereby it is:

- “ A process, ongoing and flowing through an entity,
- Effected by people at every level of an organization,
- Applied in strategy setting,
- Applied across the enterprise, at every level and unit and includes taking an entity (level portfolio view of risk),
- Designed to identify potential events that, if they occur, will affect the entity and to manage risk within its risk appetite
- Able to provide reasonable assurance to an entity's management and board of directors
- Geared to achievement of objective in one or more separate but overlapping categories” (Flaherty et al., 2006).

The most popular framework for ERM being implemented is Committee of Sponsoring Organizations of the Treadway Commission (COSO) (Bohn & Kemp, 2006). The foundation for the ERM methodology was based in COSO's 1992 Internal Control – Integrated Framework, a publication that formulated a uniform approach to managing internal control system (Bowen et al. (2006). COSO's ERM Integrated Framework expended the approach by integrating these control throughout an enterprise. It provides risk management architecture in terms of eight components to be considered under each of four categories of objectives. Therefore, each level of the organization applies the eight components of ERM to the following four categories of objectives. A particular objective may be classified into one or more categories. Hence, the classification may delineate the objective into multiple line of authority. In order to undertake the ERM program, a company needs someone who can initiate and monitor the risk related activities. It is therefore important to highlight that the COSO Report (2004) on ERM suggested the need of Chief Risk Officer (CRO) as someone who works closely with other managers in establishing effective risk management for the entire company or organization.

In addition, the CRO is considered to be someone who has the overall responsibility for monitoring progress and also for assisting other managers in reporting relevant risk information up, down and across the entire business entity. It is important for the company or organization to elect a leadership team that fits the current business setting. Usually, an organization's leadership is referred to the Board of Directors (BOD). Then, in deciding on the composition of board members to be elected, stakeholders should consult the business' ERM initiative, which highlights the most significant risks that require dynamic leadership (Rosa, 2006). For example, strategic issues, human resources and information technology will govern the board's agenda and should influence the election of board members who can provide proactive guidance on these topics to the organization's executive management team. Furthermore, COSO (2004) suggested that in the first component of ERM that is, the internal environment, it provides the required discipline and structure.

Also, it is the basis for the other seven (7) components of the framework, which encompasses the responsibilities of the board of directors and the role sound organizational culture plays. According to the Institute of Internal Auditors Malaysia (2002), internal audit can be defined as “an independent, objective assurance and assurance consulting activity designed to add value and improved an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes”. Matyjewicz and D'arcangelo (2004) postulated that internal audit was also defined as a service to management and dealt primarily with accounting matters. Thus, internal audit can be associated with:

- Operational as opposed to strategic matters
- The existence and effectiveness of control, and
- Improving performance, which implies a forward looking focus rather than historical reporting of true and fair accounts and concern with 'real' business rather than just accounting records.

Most internal auditors will acknowledge that their function is the right choice for the risk management job. Internal auditors, almost by definition, already possess good risk assessment skill sets and most have a reasonably broad understanding of risk principles (Hespenheide & Funston, 2006). Based on the history, the earliest “Statement of Responsibilities of the Internal Auditor”, in 1947, described internal audit as “a control which examines and evaluates the existence and effectiveness of other controls” and included the internal auditor's objective to improve all types of operational performance. In 1957 the statement referred to both accounting and other operations and in 1971 the reference was to 'operations'. In 1978 the Institute of Internal Auditors (IIA) were published its first formal definition of internal audit and in 1999, the IIA definition was radically updated to reflect changes in the work of audit departments and the unavoidable reality of outsourced functions.

In recent years, internal audit has been called upon to help implement COSO, lead to quality initiatives, advice on IT improvement and root out fraud. Today, another undertaking has landed on the function's doorstep: ERM (Hespenheide & Funston, 2006). As a result, internal auditing has moved from a control based approach to one that focuses on risk management, corporate governance and adding value (Walker et al., 2003). Under this broadened orientation, internal auditors help organizations identify and evaluate risks, moving the profession to the front line of risk management. Therefore, internal auditors are in a position to make significant contribution to the ERM process and add value to ERM implementations. The extent of internal audit involvement in ERM is receiving attention and is the focus of recent controversy. The COSO ERM framework lays out key elements of a process for managing all types of risk and released the final version of its ERM framework which outlines internal auditing role in supporting ERM.

It calls for internal audit functions to 'assist management and the board of directors or audit committee by examining, evaluating, reporting on and recommending improvements to the adequacy and effectiveness of the entity's ERM process' (Beasley et al., 2006). This is consistent with the IIA's definition of internal auditing which specially mentions 'risk management, control and governance processes' as elements of internal auditor responsibilities. Nevertheless, some argue that ERM should be managed by traditional risk overseers from management disciplines such as finance or insurance and that the role of the internal audit function in ERM should be limited to the last component in COSO's ERM framework which is monitoring (Beasley et al., 2006). However, one of the key requirements of the board is to gain assurance that risk management processes are working effectively and that key risks are being managed to an acceptable level whereby internal audit is a key source. Research has shown that board of directors and internal auditors agree that the most important ways that internal audit provides value to the organization are in providing objective assurance that the major business risks are being managed appropriately and providing assurance that the risk management and internal control framework is operating effectively (Matyjewicz & D'arcangelo, 2004).

Internal auditors sometimes act in a consulting role, where they serve to facilitate improvements in the organization's ERM process. In this capacity, internal auditors may also promote development of a common understanding of ERM, coach management on ERM concepts, facilitate risk – based workshops and provide tools and techniques to help managers analyze risks and design control activities. Internal audit will normally provide in three areas. Firstly, risk management process – both their design and how well they are working. Secondly, management of those risks classified as "key" including the effectiveness of the controls and other responses to them and finally, reliable and appropriate reporting and classification of risks (Matyjewicz & D'arcangelo, 2004). The internal audit departments received several major impacts from their contribution in ERM processes. First, auditors were more effective because ERM enabled the departments to organize extensive information about their companies' risk profile and determine the extent to which those risks were being managed. Information of this quality and breadth would have been virtually impossible for each audit department to obtain on its own.

Secondly, the internal audits were able to operate their departments more efficiently by leveraging ERM resources. They used the risk analyses developed through their companies' ERM efforts and applied this information to their own audit planning and execution processes. Another significant benefit derived from ERM involvement was simply 'new thinking' on the part of internal auditing. Specifically, auditors began thinking like managers and focusing on business objectives rather than audit objectives. Other important ERM benefits included greater efficiency within internal auditing, better inputs to the audit process and greater respect of internal auditing from others within the organization. It is important to recognize that the changed experienced did not result from internal audit ownership of the ERM process. Instead, each organization noted that the entire management team must be involved in ERM.

Methodology

The population of this research comprised of seven industries listed on the main board of Malaysia Bourse, 2007. Unit of analysis is a multinational company listed on the main board of Malaysia Bourse in 2007. The seven industries, totaling 587 companies, consist of construction, consumer product, industrial product, plantation, properties, trading and services and also construction. Financial industry is excluded as they are known to have more stable, ERM in practice. Stratified proportionate random sampling technique was used to get the amount of samples in this study. Below summary of the sample of companies applied under this study.

Table 1: Sample of Companies

| Type of Industry | Number of Companies (population) | Companies Selected (sampling frame) | Companies Participated |
|-------------------------|---|--|-------------------------------|
| Technology | 18 | 15 | 9 |
| Industrial Product | 156 | 134 | 8 |
| Property | 94 | 81 | 16 |
| Consumer Product | 87 | 75 | 19 |
| Plantation | 44 | 37 | 6 |
| Trade and Services | 141 | 121 | 20 |
| Construction | 44 | 37 | 11 |
| Total | 584 | 500 | 89 |

The questionnaires were sent on the 16th of December 2007 to 500 main board listed companies listed in Bursa Malaysia. The mail questionnaire is posted together with a self stamped returned envelope to ensure a high response rate. The questionnaires were addressed to the company's Chief Executive Officer (CEO)/Board of Directors (BOD).

The usable sample that can be used in the study is 89 whereas 39 samples were unusable because some were not answered, returned to sender and incomplete answers given. The survey questionnaires consisted of (5) five sections. Section A focused on gathering information pertaining to the demographic profile of respondents and their firms or companies. Section B examined the companies' Level of ERM adoption. Section C investigated the Quality of CRO in these companies. Section D examined the Quality of BOD while Section E looked at the Quality of Internal Audit Support.

Results

The COSO (2004) ERM framework was used in order to examine the Level of ERM Adoption. Meanwhile, the Quality of CRO was measured by looking at their specific tasks in practices provided by COSO (2004) and the Quality of BOD was measured in accordance to their board size, board composition and board structure (Berghe & Levrau, 2004). The Quality of IAS as moderating variable was to examine their interaction between the Quality of CRO and the Quality of BOD towards the level of ERM adoption within the companies surveyed. This moderator was adopted from Beasley et al. (2005). A Descriptive Analysis was performed to provide the general background of respondents and companies that have participated in this study. Empirically, the result of this particular study proved that ERM was being practiced by Malaysian companies. However, the ERM practices are still at the early stage but appear to be developing fast. A total of 37 companies confirmed the complete adoption of ERM, 33 companies had partially adopted ERM, four (4) companies planned to adopt ERM, 12 were still investigating to adopt ERM and only three (3) companies announced that they do not have any intention to implement ERM. Table 2 below shows the summary of cross tabulation analysis with regard to the level of ERM adoption amongst companies under study.

Table 2: Level of ERM Adoption

| | | Level of ERM Adoption | | | | | Total |
|-------------------------------------|--------------------|-----------------------|----------------------------|---------------------------|----------------------|-----------------------|-----------|
| | | No plan exist | Investigating to adopt ERM | Planning to implement ERM | Partial ERM in place | Complete ERM in place | |
| Years of company established | 1-5 Years | 0 | 1 | 0 | 0 | 0 | 1 |
| | 6-10 Years | 0 | 2 | 0 | 2 | 0 | 4 |
| | 11-15 Years | 2 | 1 | 1 | 8 | 7 | 19 |
| | 16 Years and Above | 1 | 8 | 3 | 23 | 30 | 65 |
| Total | | 3 | 12 | 4 | 33 | 37 | 89 |

Given the small number of companies that responded to the industry survey, the level of ERM adoption was divided into two (2), namely, those companies that have adopted ERM completely and those that have partially adopted ERM. The companies that have adopted ERM partially planned to adopt ERM and those companies which are still in the process of investigating to adopt ERM were considered as 'partially adopted ERM.' Companies that have no plan to implement ERM were omitted for further analysis. Therefore, the results show that 37 companies or 43 percent which adopted ERM completely and 49 companies or 57 percent have partially implemented ERM. The level of ERM adoption status among the companies is shown in Table 3 below.

Table 3: Level of ERM Adoption Status

| Level of ERM Adoption | Frequency (N=86) | Percentage | ERM Status |
|----------------------------|------------------|------------|------------|
| Complete ERM | 37 | 0.43 | Complete |
| Partial ERM | 33 | 0.38 | Partial |
| Planning to adopt ERM | 4 | 0.05 | |
| Investigating to adopt ERM | 12 | 0.14 | |

It is important to note that the overall study provides an important initial attempt to identify the level of ERM adoption by Malaysian listed companies. Interestingly, on a positive note, the result shows that companies which had been established earlier are more likely to adopt ERM. The result also shows that most companies which adopted ERM were audited by the 'Big Four' audit firms. It could be argued that companies which engage in higher quality audits are more likely to improve its corporate governance by implementing ERM. Factor analysis was undertaken to assess the validity of the quality of Internal Audit Support (IAS) as moderating variable. The result shows that the KMO measure of sampling adequacy value for the items was 0.87, indicating that the items were strongly interrelated and they shared common factors. Bartlett's test of sphericity was also found to be significant (Approx. Chi-Square = 530.142, p > .001) indicating the significance of the correlation matrix and thus the appropriateness for factor analysis.

The MSA values for the individual items ranged from 0.76 to 0.90, indicating that the data matrix was suitable for factor analysis. Results of the varimax rotated analysis indicated the existence of one significant component with eigenvalues 4.96 that explained 70.88 % of the total variances.

Table 4: Factor Analysis for Quality of Internal Audit Support (IAS)

| | Component 1 |
|--|----------------|
| The internal audit assists the organization by deciding how to identify risks | 0.903 |
| The internal audit performs risk assessments in ERM | 0.882 |
| The internal audit department coordinate ERM efforts among other departments | 0.878 |
| The internal audit department provides ERM education in the organization | 0.870 |
| The internal audit monitors the stage of ERM development in the organization | 0.802 |
| The internal audit suggests control activities to the organization to ensure risk identification is in place | 0.781 |
| The internal audit department provides ERM leadership in the organization | 0.767 |
| Eigenvalues | 4.96 |
| Total Variances Explained | 70.878% |
| KMO | 0.872 |

The Reliability Test was conducted on the independent variables to check for the internal consistency of the measurement instrument. The Cronbach's alphas for all variables scales were in the range of 0.74 to 0.93, which was well above the minimum accepted reliability of 0.60 as suggested by Sekaran (2005) (Table 7). At this stage, all variables were kept for further analysis. The Logistic Regression was performed to predict and explain the two (2) groups' categorical variable of this study (complete ERM in place/partial ERM in place). Importantly, the overall result shows that all the variables (quality of CRO, quality of BOD and quality of IAS) were statistically significant in the adoption of ERM.

Table 5: Reliability Analysis for all variables

| Variables | Number of Items | Cronbach's Alpha |
|---------------------------|--------------------|---------------------|
| Quality of CRO | 7 | 0.833 |
| Quality of BOD | 17 | 0.741 |
| Quality of Internal Audit | 7 | 0.930 |

The summary of the fitted binary logistic regression model is given in Table 6. It signifies that 3 predictor variables, which are quality of chief risk officer, quality of board of directors and moderator which is quality of internal audit influenced the level of ERM adoption.

Table 6: Variables in the Equation

| | B | S.E. | Wald | Df | Sig. | Exp(B) | 95.0% C.I.for EXP(B) | |
|----------------|---------|-------|--------|----|------|--------|-------------------------|---------|
| | | | | | | | Lower | Upper |
| Step 1(a) QCRO | 1.381 | .558 | 6.131 | 1 | .013 | 3.977 | 1.333 | 11.862 |
| QBOD | 2.733 | 1.338 | 4.172 | 1 | .041 | 15.379 | 1.117 | 211.779 |
| QIA Support | .893 | .362 | 6.083 | 1 | .014 | 2.442 | 1.201 | 4.966 |
| Constant | -11.287 | 3.181 | 12.589 | 1 | .000 | .000 | | |

a Variable(s) entered on step 1: QCRO, QBOD, QIA.

In addition, after using stepwise logistic regression, the result from Table 6 had found that quality of internal audit support is second higher sig. value of .014.

The summary of the hypotheses testing is described in Table 7 below.

Table 7: Summary of Hypotheses Testing

| Hypothesis | Statement of Hypothesis | Result |
|------------|--|-----------|
| H1 | There is a positive relationship between Quality of CRO and Level of ERM Adoption. | Supported |
| H2 | There is a positive relationship between Quality of BOD and level of ERM adoption | Supported |
| H3a | Quality of Internal Audit Support will positively influence the relationship between Quality of CRO and the Level of ERM Adoption. | Supported |
| H3b | Quality of Internal Audit Support will positively influence the relationship between Quality of BOD and the Level of ERM Adoption. | Supported |

As an overall result, there is a significant positive association between quality of Internal Audit Support which proficiently influence quality of CRO and quality of BOD towards the level of adoption of ERM in companies listed in the Malaysia Bourse. Therefore, it should be stressed that the contribution of the quality of Internal Audit Support cannot be denied for the development of the ERM practices in Malaysia.

Conclusions

It must be mentioned that this particular study, like any other study, also has its own limitations. Firstly, the response rate was quite low that is, only 89 out of 500 sample chosen. Perhaps, if the response rate is at least 100, then it will be more appropriate to make generalizations and inferences. Secondly, this study was conducted based on non-public listed companies from the main board of Malaysia Bourse only. Any finding, discussion or suggestion in this study might be irrelevant to any other party except for the companies as mentioned above. Finally, this study did not make any attempt to measure companies' performance after adopting ERM.

Based on the limitations of the study, future researches on similar topic are recommended for enhancement in certain area of interest. First of all, there is a need to investigate the companies' performance after applying the ERM framework. A study of more than one (1) year would be necessary to examine a trend or pattern of performance for companies that applied the ERM framework. Therefore, it is strongly suggested that the research approach could possibly utilize a qualitative research approach such as in-depth interviews, case studies or in combination with survey questionnaires. In addition, additional variables could be included to create a new framework for the study.

Finally, it must be emphasized that key findings of this study reveals that some of the companies in Malaysia had already adopted the ERM framework to their advantage. On a positive note, it is highly optimistic that many more companies and organizations may tend to follow suit by eventually adopting ERM for effective management of risks.

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