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THE EFFECTIVENESS OF INTERNAL AUDIT FUNCTION AND RISK MANAGEMENT IN THE MALAYSIA CONSUMER PRODUCTS INDUSTRY

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Abstract

Internal audit function (IAF) plays an increasingly important role in the corporate governance landscape in Malaysia. Besides that, IAF also involved in risk management which providing an assurance on the effectiveness of the risk management process. Bursa Malaysia has mandated that companies have to disclose whether the IAF is performed in-house or outsourced, and the costs incurred in the financial year. Therefore, the purpose of this study is to investigate the association by using these unique data concerning whether IAF have any influence on the enterprise risk management (ERM) effectiveness. The final sample of this study consists of companies from consumer industry which are listed in Bursa Malaysia in the year of 2012 to 2015. Data was further analysed using Ordinary Least Square (OLS) regression analysis to examine the relationship between internal audit function attributes and ERM effectiveness. The findings show that, the amount of investment in internal audit function is significantly related to ERM. However, this study did not find any association between the IAF sourcing arrangement and ERM. The results can only be generalised to the consumer industry companies listed in Bursa Malaysia. This study provides valuable insights into the importance of effectiveness of IAF in monitoring process thus help increase the effectiveness of ERM.

Keywords: Malaysia, enterprise risk management, internal audit function, outsourcing and cost.

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Introduction

In Malaysia, the closure of companies such as Rayani Air, Delifrance and Western Digital, and many bank branches among others recently have caused thousands of people losing their jobs. These events, not only affect the employees of these companies, but also disrupted products and services provision to the consumers. Effective implementation of a holistic view of risk management i.e. the ERM[1] is recognized as one important factor to reduce risks and assure achievement of companies' strategic objectives (Florio & Leoni, 2017; Gordon et al., 2009; Liebenberg & Hoyt, 2003; Nocco & Stulz, 2006). As part of the overall ERM framework, internal audit function not only evaluates the effectiveness and efficiency of the internal control systems, but it also helps management and audit committee to determine, evaluate and make report on the effectiveness of ERM processes within a company (COSO, 2020)[2]. As such, effectively from 2007 all listed companies in Malaysia must establish an internal IAF. 'The Listing Requirements' of Bursa

[1] ERM is defined by COSO (2004, p. 2) as:
"[...] a process, affected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives."
[2] The argument on internal audit function is consistent with the Institute of Internal Auditors (2004) statement that the internal audit function should evaluate and contribute to the improvement of risk management, control, and governance.

Malaysia also mandates that companies must disclose whether the IAF is performed in-house or outsourced, and the costs incurred in the financial year. Malaysia is used as a setting to address the research propositions due to several important considerations. First, we capitalize on the unique data concerning the amount of investment or cost in IAF, which is publicly available for Malaysia listed companies. Second, it plays an increasingly importance role in the corporate governance landscape in Malaysia. Thus, these factors have triggered the idea of this study to extend the literature on IAF by using the data from 2012 to 2015. In consideration of the above premises, this study tested whether a relationship between the internal audit function (IAF) that includes (a) the investment on IAF and (b) the arrangement (in-house or outsourced), and ERM effectiveness of Malaysia listed companies exist.

We extend these studies by exploring the effect of the IAF sourcing arrangement on the effectiveness of ERM (De Zwaan et al., 2011). Therefore, the objectives of the study are to examine the association between the costs of investment in internal audit function with the ERM effectiveness. Second, we study whether the sourcing arrangements of internal audit function (namely whether it is performed in-house or outsourced to a third-party internal audit service provider) have any influence on the ERM effectiveness. Our motivation to study this link comes from the insights provided by previous research, which demonstrates that the sourcing of the internal audit function has a significant result on the external auditor's assessment of the quality of the internal audit function (Coram et al., 2008; Munro & Stewart, 2011). In addition, because the role of internal audit is to oversee ERM processes. We expect this study could make significant contribution to the practice and improvement of ERM governance.

The Institute of Internal Auditor (IIA, 2003) defined internal auditing as an independent, objective assurance and consulting activity designed to add value and improve 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. However, internal auditors also have vital role in consulting and providing assurance on risk management (De Zwaan et al., 2011). IAF work closely with the audit committee, board of directors and management offers to understand the company's risk management philosophy and overall risk appetite. The persistence changes in the organisation lead to the necessity to include risk management monitoring within internal audit functions (Soh & Martinov-Bennie, 2011).

Typically, major risk management processes involve identifying, analysing, evaluating and treating risks (Sarens et al., 2012). It is acknowledged that risk management is primarily under the responsibility of directors and senior managers (Novatiani et al., 2022). Among others, the roles of internal audit are to "review and evaluate the management and the reporting of key risks, risk management processes, give assurance that risks are correctly evaluated on the risk management processes." Institute of Internal Auditor (IIA, 2009) . Effective ERM may results in more consent risk taking and decision making (Coetzee, 2016), higher chances of misappropriation of assets fraud detection and reporting (Coram et al., 2008) and lessens the level of earnings management (Prawitt et al., 2009; Sierra García et al., 2012). In this study we focus on the overall ERM effectiveness which is in the strategy execution and operating efficiency (Gordon et al., 2009). Thus, this study investigates the role of IAF based on resource-based view of the company which used to create competitive advantage and view the sourcing arrangement of internal audit and the invested costs and discuss these issues in turn.

Some studies provide evidence that higher quality in-house IAF are positively associated with accounting quality. A study done by Wan-hussin & Bamahros (2013) have reassure that in-house IAF significantly will reduce the audit report lag. This might be explained by the argument that in-house internal auditors are more familiar to the firm's culture, chain of command and information sources and are more familiar with its vendors, customers and processes (Abbott et al., 2012). It is also worth observed that in-house internal auditors have everyday contact with the company, and this give them with more chances to find issues and examine critical facts and problems from employees (Glover et al., 2008). These arguments are also consistent with the resource-based view when familiarity and closeness to the information are regarded as resources to companies.

However, there has been limited research on the effectiveness of internal audit (aside from the perceptions of various parties) or the relative effectiveness of using an in-house function compared to outsourcing the internal audit function. Therefore, this study covers the role of internal auditing in risk management in a context different from those where the above international studies were conducted. Thus far there is no single empirical study done on the internal audit function sourcing arrangement relationship with ERM effectiveness. Thus, the first hypothesis tested is as follows:

H1. There is a negative relationship between the IAF outsourcing arrangements with ERM effectiveness.

According to Abbott et al., (2012) IAF are involved with the financial reporting process and good quality of IAF helps increase the effectiveness of the financial reporting process. Prawitt et al., (2009) suggested that the amount spent on internal auditing for the industry as one of the six composite measures of the IAF quality could help in lessening the level of earnings management. This result indicates that greater investment in IAF implies the more competent IAF personnel who have greater monitoring ability to detect material misstatements. Thus, investment in IAF helps management to establish strong controls over financial reporting process. A study done by Wan-hussin & Bamahros (2013) on the association between investment in the IAF and audit delay in Malaysia, have found that there is a negative relationship between the cost incurred for the IAF and audit delay. Hence, like the previous study and consistency with resource-based view, this study predicts that the amount of cost incurred in the IAF has positive influence in the effectiveness of ERM. Our next hypothesis is as follows:

H2. There is a positive relationship between the total costs incurred for IAF with ERM effectiveness.

Methods

This study employed a quantitative method. We have selected consumer product industry for two reasons. First, consumer product industry is one of the most important industries in Bursa Malaysia have been identified as among the top performers in Bursa Malaysia (Yusoff et al., 2016). We include data from 2012 to 2015 as new recommendations about ERM were first released by Bursa Malaysia and became effective starting from 2012. The four-year period is considered enough to allow us to understand the how internal audit function influence risk management effectiveness. To be included, a firm must be listed in Bursa Malaysia before or in the year 2012 and each firm must have all the data of the variables used to test the hypotheses. Initial sample from Osiris database is 129 consumer firms. After eliminating firms with incomplete data, our final sample is reduced to 67 firms. The final sample consists of a total of 67 consumer firms yielded 268 firm-year observations. Regression analysis is used to identify the relationship between the dependent and explanatory variables. The empirical model is as follows:

$$ERM_{it} = \beta_0 + \beta_1 LNIAFINV_{it} + \beta_2 IAFSOU_{it} + \beta_3 LNFEE_{it} + \beta_4 LNASSET_{it} + \beta_5 LOSS_{it} + \beta_6 OPINION_{it} + \beta_7 BIG4_{it} + \varepsilon$$

Were,

ERM	=	effectiveness of enterprise risk management
LNIAFINV	=	the natural logarithm of the cost borne by the internal audit function for the year
IAFSOU	=	dummy variable: 1 if the internal audit function is established in-house and 0 if otherwise
LNFEE	=	the natural logarithm of total audit fees paid to external auditor
LNASSET	=	measures firm size and calculated as natural logarithms of total asset
LOSS	=	poorly performing firms, which is represented by the occurrence of negative earnings
OPINION	=	dummy variable: 1 if the firm received unqualified opinion and 0 for firms receiving emphasis of matter or disclaimer audit opinion
BIG4	=	Dummy variable: 1 if the firm is clients audited by large international audit firms, namely PricewaterhouseCoopers, Ernst & Young, KPMG or Deloitte (BIG4) and 0 if otherwise
ε	=	Error term

According to Baltagi (2008), panel data is able to produce results that are simply undetectable in pure cross-section or pure time-series data. Regression test under panel data also incorporates a test of random or fixed effect models (Hausman, 1978). Generally, fixed effect model assumes the differences in intercepts across the groups or time, while random effect model looks at the differences in error terms. In this study, Hausman test shows a non-significant result i.e., Chi-Sq statistic = 2.23 and p =0.946. Therefore, a random effect model is appropriate. In addition, White test is used to detect the problems of Heteroscedasticity. The finding of white test reveals the existence of heteroscedasticity problem (Chi-Square=21.77, Prob > Chi-Square = 0.000). Specifically, it indicates that the variance of error terms is not constant across observations. To overcome this problem, a robust standard error procedure is often used. Indeed, Stock & Watson (2008) highlighted that in the presence of heteroscedasticity, a robust standard error such as clustering is the ultimate choice.

This study used the ERM Index (ERM) which is adopted from a study done by (Gordon et al., 2009). Index is based on COSO's four objectives of ERM which also based on the firms' ability to achieve its objective related to strategy, operations, reporting, and compliance (COSO, 2017). However, in this study, our measurement of ERM index comprises of only two objectives which are the strategy and operations because reporting and compliance are more related to shareholders and regulators, and they do not relate directly to consumers. In contrast, strategy and operations are related to products or services offered to consumers and their purchasing behaviour (Yeung et al., 2010).

Result and Discussion

Table 1 presents the descriptive statistics that contain the values of mean, median and standard deviations of each variable. ERM effectiveness is the dependent variable and LNIAFINV, IAFSOU, LNASSET, LNFEE, LOSS, OPINION and BIG4 are explanatory variable.

Table 1: Descriptive statistics for dependent variables and continuous independent variables (N=268)

Variable	Mean	Median	Standard deviation
ERM	2.297	1.830	1.717
LNIAFINV	2.420	2.391	0.127
LNFEE	2.488	2.470	0.070
LNASSET	12.710	12.526	1.239

Empirical results

The multivariate analysis is based on random effect method as Hausman (1978) test produces insignificant result (p-value = 0.946). Table 2 presents the regression result investigated in this study. Consistent with our prediction, ERM effectiveness has strong association with amount investment in IAF (H_2). It is consistent with resource-based view that more resources are important in organizations to achieve its objectives. However, we do not find any significant relationship between internal audit sourcing arrangement and ERM effectiveness (H_1). As such, whether internal audit function is within an organization or outsourced to an independent party do not significantly affect the effectiveness of ERM as measured by strategy and operating effectiveness. Since both arrangements resulting in benefits to the effectiveness of ERM, the differentiation in these two arrangements may not be obvious.

Table 2: Regression result

Variable	Coefficient	Std. Error	t-Statistic
IAFSOU	-0.002	0.099	-0.02
LNIAFINV	4.504***	1.050	4.29
LNASSET	0.257***	0.091	2.83
LNFEE	0.114	1.855	0.06
LOSS	-0.281***	0.078	-3.59
OPINION	0.046***	0.021	2.16
BIG4	0.618***	0.180	3.42
C	-12.401	2.826	-4.38

R^2 =0.38

Note: *** Correlation is significant at the 0.01 level (2-tailed)

Conclusion

This study attempts to examine on the determinants of ERM effectiveness by investigating the association between the IAF attributes and ERM effectiveness using a sample of publicly consumer firms in Malaysia for year 2012 to 2015. The study employs a random effect static panel data to examine the relationships between internal audit function attributes with ERM effectiveness. The main finding of this study shows that the amount of investment IAF is positively related to ERM effectiveness. This might be because the ERM requires high implementation costs. This study shows that a substantial amount invested to pay for internal auditors helps them in process for monitoring and thus increase the effectiveness of ERM. However, this study fails to show a clear association between IAF outsourcing arrangement with ERM effectiveness. This might be due to benefits from in-house (more context familiarity) and outsourcing arrangement (independence) results in not significantly difference in terms of internal audit quality provided between the two arrangements. As ERM is a relatively new program in Malaysia, regulators could formulate policy to improve disclosure on financial position as well as risk profile which it may help in reducing the asymmetry information. In addition, the finding of this study can also be used to improve the awareness among listed companies that the IAF plays significant roles to the effect of the ERM effectiveness. Although the effect of ERM does not happen immediately but with ultimate commitments from all organization members as well as financial pledges as to ensure the success of ERM program and provides greater benefits in the long run.

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Author Contribution

Rohaida Ismail – conceptualization, data collection and analyse, writing, editing; Norman Mohd-Saleh – supervision, writing, editing; Rubayah Yakob – supervision, writing, editing; Amariah Hanum Hussin – data collection and analyse, writing, editing

Conflict of Interest

Author declares no conflict of interest.

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