

## Discretionary Risks Disclosure: A Management Perspective

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### ABSTRACT

*Discretionary risks disclosure practices by managers provide useful information to investors and other users of accounting information in assessing the risk profile of a company. A managers' ability to disclose relevant risk information that reflects more accurately the companies' current and future financial performance will facilitate these users in making effective investment decisions. This paper aims to examine empirically the effect of management perception on the disclosure of risk-related information in companies' annual reports, thus, exploring the current practices of risk reporting by managers of listed companies in Malaysia. The findings should provide useful information to regulators and other policymakers in identifying the factors that influence managers' perception of risk-related information and, consequently, affect the extent and nature of risk information disclosed in companies' annual reports. Overall, the findings reveal that enhanced understanding and perception on the overall risk concepts are important drivers that can facilitate managers in disclosing more comprehensive and relevant risk-related information. This, in turn, improves the trust and confidence of investors and other users of financial statements as their evaluations are influenced by the choices of information being disclosed in annual reports by managers.*

*Keywords: Corporate reporting; annual report; risk information*

### INTRODUCTION

The uncertain business environment requires an organisation to manage its risks in order to reduce the unwanted impact of risks on current and future firm performance. The information regarding the ability of companies to manage their risks is certainly useful to current and future investors in making their economic decisions. This points to the importance of corporate disclosure as a vehicle to communicate firm activities to users of financial statements. However, there are concerns by market participants that the current state of corporate disclosure lacks relevance and comprehensiveness in discussing past events as well as predicting the outcome of future performance (Bushman & Smith 2003). While mandatory disclosure requirements play an important role in influencing the manager's propensity to disclose risk-related information, it can nevertheless limit managers' ability to communicate effectively to outside investors (Healy & Palepu 1993). As managers have the information advantage of the current and future firm performance, mandatory risk disclosure requirements could limit the disclosure of more comprehensive and relevant discretionary risk information. Hence, discretionary disclosure of risk information has the potential to convey managers' superior information on the firm's risk profile. However, several recent studies suggest that managers' ability to convey this information is influenced by their perception and understanding of the related issues (e.g. Solomon et al. 2000; Chand & White 2006; Askary 2006; Haniffa & Cooke 2000). As such, it is important to understand the factors that affect managers'

perception and understanding in promoting corporate transparency.

In relation to disclosure practices of risk information, there are two main reasons to study managers' discretion or perception on discretionary disclosure of risk information. First, there is limited attention in prior studies that examine the impact on managers' understanding of corporate information that are considered as risky information. Solomon, Solomon, Norton and Joseph (2000) examined the attitude of managers of institutional investors in assessing the level of adequacy of risk managers. The study attempts to identify managers' views on the corporate governance structures and type of risk-related disclosure. However, this study does not specifically examine managers' perception regarding their understanding of the type of risk-related disclosure. Managers' understanding of the nature of risk-related information is paramount in determining the disclosure of risk-related information. Lack of understanding among managers can widen the information gap between managers and users of financial statements.

Second, enhanced risk reporting has received a lot of attention by various parties. Many initiatives through various pronouncements of risk management issues and best practices of business risk reporting have taken place in promoting enhanced corporate transparency, especially in developed countries such as the United Kingdom, Germany and Canada (Konishi & Md. Mohobbot 2007; Lajili & Zeghal 2005). In Malaysia, similar efforts are evidenced through the involvement of various regulatory

bodies in promoting corporate transparency among public listed companies (PLCs). The overall global effort points to the importance of enhanced corporate disclosure, including risk-related disclosure, as such disclosures provide useful information regarding current performance reliability, financial position, investment opportunities, governance, value and risk of PLCs (Bushman & Smith 2003: 76). Hence, it is important that managers understand various aspects of risk-related issues in order to provide more comprehensive and relevant risk information in line with the various regulatory efforts. Concurrently, it is important to examine the factors that influence managers' understanding and perception of risk-related issues. The findings in this study are expected to provide useful information for regulatory bodies in identifying the factors that can facilitate managers' understanding of risk-related information and, consequently, enhance corporate transparency.

Therefore, this paper attempts to examine the effect of management perception and understanding of risk-related information disclosure on the extent of risk-related information disclosure in corporate annual reports. Managers' perception and understanding are analysed in terms of their understanding regarding the concepts of risk and the definitions of risk, motivation to disclose risky information, the characteristics of the risk information and the reasons for disclosing risk in annual reports. The risk-related information disclosure is viewed from the overall extensiveness of disclosure in the annual report from managers' viewpoints. The type of individual risk and the location of risk information reported in the annual report are also analysed.

This paper contributes to the disclosure literature by providing evidence concerning the level of managers' perception and understanding of risky information that affects the extent of risk-related information disclosure in the annual report. This paper is organised as follows; Section 2 presents related literature including current reporting practices, the importance of information disclosure in annual reports and types of risk-related information. Section 3 describes the hypotheses development. Section 4 elaborates on the methodology and data collection. Section 5 presents descriptive statistics, regression results and discussion of the findings, and, finally, Section 6 concludes the paper and provides suggestions for future research.

## REVIEW OF LITERATURE

### THE IMPORTANCE OF INFORMATION DISCLOSED IN ANNUAL REPORT

The corporate annual report has been accepted as a vehicle that provides useful information to users and analysts for better investment decision making (Parker 1982). Based on a sample of respondents, Buzby (1974) noted that 96% of the respondents based their investment decisions totally or partly on information revealed in annual reports. During the introductory years of corporate reporting, the

additional information provided to users and analysts was mostly financial information. For example, methods of depreciation used, composition of fund flows, composition of inventory, sales and gross margin data, segmented sales and profit data and the planned level of capital expenditure (Barrett 1976). However, current studies revealed that sole reliance on financial information has been found to be inadequate in meeting the decision making needs of users (Maines et al. 2002). The inadequacy is contributed to by the complexity and uncertainty surrounding the business environment. Therefore, preparers of annual reports are encouraged to provide information beyond financial information. Examples of this information are environmental information, intellectual capital information and risk management issues. Such information could be a reliable source for improved decision making while promoting a higher level of corporate transparency (Abeysekera 2008; Cooke 1989). Consistent with this, recent studies reported that companies in developed countries are disclosing information on certain major issues such as environmental and sustainability reports (Abeysekera 2008; Boesso & Kumar 2005; Robb, Single, & Zarzeski 2001). This information is reported as part of the annual report or in a separate report. Managers' disclosure incentives beyond financial information could also be attributed to the aggressive promotion of value added information disclosure by some accounting bodies.

In Malaysia, Bursa Malaysia launched a guideline on "Corporate Disclosure Best Practices" in 2004. The guideline focuses on managers' responsibility and ability in handling, disclosing and disseminating substantial information. It also highlights the importance of managers' discretion in disclosing and conveying accurate, clear, timely and complete information for investors' investment purposes. While the guideline is non-mandatory, companies are encouraged to adhere to the recommendations included in the guidelines. This, in turn, is expected to result in more accurate evaluation of corporate information by investors and other users, which, consequently, create and sustain corporate credibility and investors' confidence. As such, the recommendations are expected to have a significant effect on share prices, value or market activity and on choice of investment decision by the investors (Bursa Malaysia, July 2004).

*Current Reporting Practices in Malaysia* The growing importance of disclosing more comprehensive voluntary information in annual reports has resulted in various efforts promoted by various regulatory bodies. The importance can be seen from the discussion of the Malaysian Accounting Standards Board (MASB) in relation to the adoption of the International Financial Accounting Standards (IFRS), Bursa Malaysia Listing Requirements and Securities Commissions rules and regulations in Capital Market Listings. For example, companies listed on Bursa Malaysia are required to prepare and present their financial statements in accordance with FRS101: Presentation of

Financial Statements. FRS 101 requires companies to prepare financial statements that provide information about the financial position, financial performance and cash flows of an entity that is considered useful to a wide range of users in making economic decisions. In addition to mandatory compliance of the standard, companies are encouraged to present a financial review by management. The objective of the review is to describe and explain the main features of the company's financial performance and financial position, and the principal uncertainties it faces. It is also recommended to include factors that influence and determine the company's financial performance, such as changes in the business environment and the company's response to those changes and effects. Finally, it also recommends the inclusion of the company's policy on investment to maintain and enhance their financial performance, as well as the sources of funding and resources that the company has not recognised in the statement of financial position.

In relation to the disclosure of risk-related information, IFRS 7: Financial Instruments: Disclosures specifically discusses how to measure and manage the exposure to risks that arise from financial instruments. The standard gives suggestions on the minimum disclosure of credit risk, liquidity risk and market risk.

#### THE TYPE OF RISK-RELATED INFORMATION

The origin of the word of risk is believed to be either from Arabic, Latin or French words, and is associated with unintended or unexpected outcomes, good or bad decisions or courses of action that are related to undesirable outcomes and the chance of their occurrence (Wharton 1992). In a study by Solomon et al. (2000), risk is defined as the uncertainty associated with potential gain or loss, where the information pertaining to the nature of risk might be seen from positive and negative aspects (AIRMIC, ALARM, IRM 2002). In another study, Linsley and Shrivs (2006, p. 389) adapted the definition of risk by Lupton (1999) in judging risk that should be disclosed in annual reports. The risk should inform the user of any opportunity or prospect, hazard, harm, danger, threat or exposure, that has already impacted the company or may impact the company in the future or the management of any such opportunity, prospect, hazard, harm, threat or exposure.

Beretta and Bozzolan (2004: 269) defined risk disclosure as the communication of information concerning a firm's strategies, characteristics, operations, and other external factors that have the potential to affect expected results. Cabedo and Tirado (2004) commented in their research that business entities are exposed to several types of risk such as business, strategic and financial. The various definitions of risk reported in these studies suggest that the companies are required to disclose financial and non-financial risks in annual reports if such information is to be useful to investors and other users. As such, while companies are required by regulators to provide compulsory disclosure of financial risks associated

with financial instruments, such requirements should be complemented with voluntary information on non-financial risks. Disclosure of other risk information that could affect companies operations is important as it supplements the mandatory information in the annual reports (Alsaeed 2006).

Specifically, risk-related information could be identified as financial risk and non-financial risk (ICAEW 2002). Financial risks that are quantitative in nature encompasses risks associated with hedge accounting, while non-financial risks are typically qualitative and voluntary in nature. Non-financial risks are also known as business risks, which comprise strategic, operations, reporting, compliance, reputation and performance risks (Linsley & Shrivs 2006).

Jorion (1997) as cited in Cabedo and Tirado (2004, pp. 184-185), described three types of risk that are related to the business environment: (1) Business risk, (2) Strategic risk, and (3) Financial risk. According to Jorion (1997), business risks are the risks that a company is willing to assume in order to create competitive advantages and add to shareholders' value. They are related to the product market in which the company operates, and include technological innovations, product design and marketing. This type of risk is associated with the company's internal skill or competitive advantage. Whereas, strategic risks are risks related to basic changes in the economy or political environment while financial risks are related to possible losses in the financial markets.

According to Solomon et al. (2000), a company should decide on the type of risk information for disclosure purposes regardless of whether the information is mandatory or voluntary. However, in highly uncertain environments, it is not easy to predict the level of risk that a company might face in the future. Thus, there is a need to provide a comprehensive risk-content report that includes both types of risk information (i.e.: voluntary and mandatory). Mandatory risk information is the information that relates to the use of financial instruments and this information is clearly stated in FRS132: Financial Instruments – Disclosure and Presentation. However, Beretta and Bozzolan (2004) argued that the voluntary nature of risk information is also much needed by the analysts when preparing more accurate earnings forecast reports.

Voluntary risk information can include information on strategy, actions and performance, risk and forward-looking information (ICAEW 2002). Beretta and Bozzolan (2004) suggested that this information should focus on the sources of business uncertainty that affect share volatility, different types of risk, and expected future performance. Expanding the proposal developed by ICAEW, the Arthur Andersen Business Risk Model™ includes the categorisation of business risks that can be useful in managing risks faced by companies in a complex business environment. While there are various definitions and categories of risk, this study selects those risks that have been observed and examined

by Amran, Rosli and Haat (2009) as these are the risks associated with the corporate environment of Malaysian PLCs. These risks are shown in Table 1.

The current state of corporate practices suggests that disclosure of non-mandatory information is highly demanded and is acceptable as a medium to convey more comprehensive information about a company's activities, especially in an uncertain business environment. Such disclosure may affect investors' decisions on future investments. It has been observed over time that entities make decisions based on the perception about the cause of their actions. Although the occurrence of actual risk is still not acknowledged at certain times, perceived risks have to be taken into account in the decision-making stage to ensure the survival of the entity in the future. Therefore, incorporating voluntary risk information in annual reports to complement mandatory financial risks information can provide timely and reliable information to investors in assessing a company's risk exposure.

#### HYPOTHESES DEVELOPMENT

The focus of this paper is to examine the effect of management perceptions and understanding of the overall risk concepts on the extent of risk-related information disclosure in corporate annual reports of public listed companies (PLCs) in Malaysia. A study done in Hong Kong by Ho and Wong (2001) suggests that managers are satisfied with the adequacy of current corporate reporting. However, their results contradict some other studies on corporate voluntary disclosures (e.g. Haniffa & Cooke 2000; Ghazali 2008). In addition, these studies also suggest

that investors and other users demand more improvement in corporate disclosure relative to the current level of disclosure. A higher level of corporate transparency is expected to improve decision making of these users and, consequently, enhance market efficiency. Hence, it is important for managers' disclosure strategy to incorporate enhanced communication through voluntary disclosure of more relevant information to the external users. Managers are in possession of superior knowledge in their uncertain business environment and this could affect managers' decisions in determining distinct and superior information to be included in annual reports (O'Dwyer 2002). Such disclosure strategy is in line with the increasing demand of the users as well as regulators in promoting and developing timely and reliable corporate reporting. Based on this reasoning, the following hypothesis is developed:

H<sub>1</sub>: Managers' perception and understanding of the overall risk concept are positively significantly related to the extent of risk information disclosure in the annual report.

Some recent studies suggest that management perception and understanding are closely related to the years of working experience, their educational background and professional qualification (e.g. Solomon et al. 2000; Chand & White 2006; Askary 2006; Haniffa & Cooke 2000). Results in Solomon et al. (2000) reveal that respondents with several years of experience in the same industry have a stronger understanding of the process of the corporate governance system. In relation to corporate disclosure, Ghazali (2008) found that the level of

TABLE 1. Type of Risk and Its Definition

Type of Risk	Definition (in accordance to ICAEW)
Financial risk	The risk that cash flows and financial risks are not managed cost-effectively to: (1) maximize cash availability, (2) reduce uncertainty of currency, interest rate, credit and other financial risks, or (3) move cash funds quickly and without loss of value to wherever they are needed most.
Operations risk	The risk that operations are inefficient and ineffective in executing the firm's business model, satisfying customers and achieving the firm's quality, cost and time performance objectives.
Strategic risk	The risk associated with future business plans and strategies, including plans for entering new business lines, expanding existing services through mergers and acquisitions, enhancing infrastructure, etc.
Environmental risk	Actual or potential threat of adverse effects on living organisms and environment by effluents, emissions, wastes, resource depletion, etc. that arise out of an organization's activities.
Empowerment risk	The risk that managers and employees (1) are not properly led, (2) do not know what to do when they need to do it, (3) exceed the boundaries of their assigned authorities, or (4) are given incentives to do the wrong thing.
Information technology risk	The risk that the information technologies used in the firm (1) are not operating as intended, (2) are compromising the integrity and reliability of data and information, (3) are exposing significant assets to potential loss or misuse, or (4) are exposing the firm's ability to sustain the operation of critical processes.
Integrity risk	The risk of management fraud, employee fraud, illegal acts and unauthorised acts, any or all of which could lead to reputation loss in the marketplace.

corporate disclosure is associated with certain qualitative characteristics of the management. These studies infer that certain managerial characteristics affect their discretionary decisions in selecting the information to be disclosed in annual reports. In particular, their understanding of corporate strengths and weaknesses will be very useful in determining the nature and extent of corporate information for disclosure purposes. Thus, experienced managers will facilitate the determination process of corporate disclosure. Based on this reasoning, this study expects that the years of working experience in the same industry may influence the perception and understanding of corporate managers towards disclosing more comprehensive risk-related information. This leads to the following hypothesis:

H<sub>2</sub>: The number of years of managers' working experience is significantly related to the understanding of the concept of risk-related information that affects the extent of risk information disclosed in annual report.

Chand and White (2006) noted that professional training and development experience may help directors in interpreting and applying accounting standards in a consistent manner. This, in turn, shapes the manager's discretion in disclosing voluntary information relative to compliance with the accounting standards requirements. Furthermore, the level of professionalism may influence the variation in the choice of financial reporting preparation to satisfy customers' needs (Askary 2006). In line with this argument, Haniffa and Cooke (2000) hypothesised that directors with an academic background of accounting and business choose to disclose more comprehensive information in order to improve the corporate image and credibility of the management team. Jeanjean and Stolowy (2009) also argue that high quality reporting is associated with a high proportion of the directors on the board having financial expertise. Their expertise should reduce ambiguous board decisions. Even though the cost of acquiring such expertise is high, it provides credentials that the board is knowledgeable in enhancing the shareholders' value. Based on the above arguments, the following hypothesis is developed:

H<sub>3</sub>: The level of educational background of managers is significantly related to the understanding of the concept of risk-related information that affects the extent of risk information disclosed in annual reports

#### DATA COLLECTION AND METHODOLOGY

To test the hypotheses, a questionnaire was designed to meet the objectives of the study and to gather information from the perspective of managers in selected PLCs. The selected management representatives consist of managers, senior accountants and senior accounts executives. These personnel are expected to be involved in the preparation

and presentation of information in corporate annual reports.

The initial step in constructing the questionnaire is through an extensive review of disclosure and risk management literature as well as the ICAEW guidelines on corporate disclosures. An initial list of questions that could indicate the understanding of management that influence their disclosure decisions regarding the risk-related information was developed. The questions were pre-tested by sending to several respondents. Based on the feedback received, the pilot questionnaire was refined.

The final questionnaire was then sent by hand and followed by email to 50 respondents from various sectors such as information technology (IT), construction, finance and plantation. Of these, 31 completed questionnaires were returned, generating an overall response rate of 62%. While the number of respondents is small, it nevertheless represents a reasonably good response rate.

The respondents are required to state the scale from 1 (not essential) to 5 (absolutely essential) in order to indicate the importance of the types of risk that are disclosed in annual reports based on their perspectives. In addition, the respondents are also required to choose the score from 1 (no disclosure) to 5 (very comprehensive disclosure), which will measure their judgment of the current extent of risk-related disclosure in their company's annual reports.

The results in relation to the level of working experience and qualifications of the respondents are presented in Table 2 and Table 3 below. The level of working experience among managers are broken into two categories: (1) Less experience; for less than 6 years, and (2) More experience; for those working more than 6 years. Table 2 also presents the results in relation to the respondents' working experience based on the number of years. The results indicate that the majority of respondents have less than 6 years working experience, representing 64.5% of the total respondents.

TABLE 2. Number of Years of Respondents Working Experience

Years of experience	Frequency	Percentage
1 – less than 6	20	64.5
6 and above	11	35.5
Total	31	100

The level of qualifications among managers is broken into four categories: (1) Diploma (2) Degree (3) Master and above and (4) Professional. The results in Table 3 indicate that 42% of the respondents hold an undergraduate degree, which are diploma and degree holders, while the postgraduate degree holders and professional holders are equally distributed at 29% each. The higher percentage of diploma and degree holders among the respondents and less experienced managers might influence their judgment and understanding of risk reporting. Consequently, the

results in this study should be interpreted with caution and may not be generalised to other managers of public listed companies in Malaysia.

TABLE 3. Level of Qualification of Respondents

Years of experience	Frequency	Percentage
Diploma	2	6.5
Degree	11	35.5
Master and above	9	29.0
Professional	9	29.0
Total	31	100

## ANALYSIS OF RESULTS AND DISCUSSION

### DESCRIPTIVE ANALYSIS

The descriptive statistics for the dependent variables of the extent of risk-related information disclosure and independent variables of type of risks information is presented in Table 4. The type of risk information is in accordance with suggestions by ICAEW. In addition to this, other related results in relation to the extensive level of risk disclosure from managers' perspective, the importance of risk-related information according to its type and the location of risk-related information reported in annual reports are also presented in this section.

The results in Table 4 reveal that the mean of the dependent variable of the overall extent of risk-related disclosure is 3.48. This indicates that a moderate amount of overall extent of risk-related information is disclosed in annual reports. In relation to independent variables, the results in Table 4 reveal relatively higher mean values relative to the mean value of the dependent variable.

Figure 1 presents the frequency of the risk-related information disclosure in companies' annual reports from the perspective of managers. The highest score of 10 represents the disclosure of qualitative information. This infers that managers have high incentives to disclose qualitative risk information. In contrast, the results in

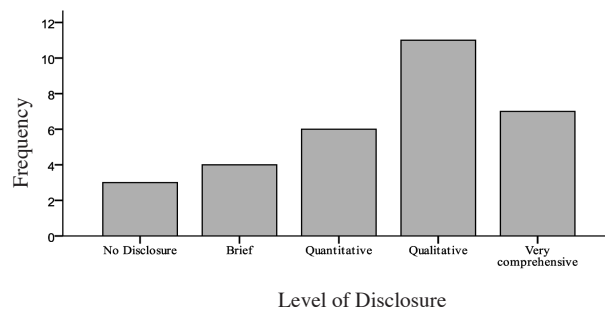


FIGURE 1. The Extent of Risk Disclosure from the Perspective of Corporate Managers

Figure 1 indicate that three (3) companies do not disclose any information on risk in their annual reports.

Figure 2 shows the proportion of risk-related information disclosure according to the type of risk in percentages. The financial risk (FIN), as indicated earlier in Table 1, scores the highest mean value. This indicates that the respondents perceive that such information is regarded as absolutely essential (45%) relative to other types of risk such as Operations (OP) (very essential), Strategic (STRT) (very essential), Environmental (ENV) (essential), Empowerment (EMP) (essential), Information Technology (IT) (very essential) and Integrity (INTG) (very essential). These results are also consistent with studies by Lajili and Zeghal (2005) and Abraham and Cox (2007). Using content analysis, their studies found that the financial risk category represents the highest amount of risk information disclosed in annual reports. A possible explanation to the importance placed on the disclosure of risk information among the respondents could be related to compliance with FRS 132 Financial Instruments: Presentation in Malaysia. FRS 132 requires company to disclose risks that may affect future operation, which is consistent with financial risk. In contrast, Linsley and Shrives (2008; 2005) found that the number of risk disclosures within the strategic risk category and the integrity risk categories are the preferred disclosure preference among managers in the UK. Based on content analysis of UK companies' annual reports in 2001, their

TABLE 4. Descriptive Statistics of Continuous Dependent and Independent Variables

Variable	Minimum	Maximum	Mean	Standard Deviation
The extent of disclosure	1.00	5.00	3.48	1.261
Risk Concepts (RC)	2.00	4.75	3.78	.499
Risk Definition (RD)	2.00	4.80	3.56	.424
Financial Risk Definition (FRD)	2.00	5.00	3.88	.782
Non-financial Risk Definition (NFRD)	2.00	5.00	3.69	.628
Benefits of Risk (BR)	2.00	4.60	3.76	.509
Characteristics of Risks Information (CRI)	2.00	5.00	3.98	.537
Motivation of Disclosure (MD)	2.25	4.75	3.82	.541

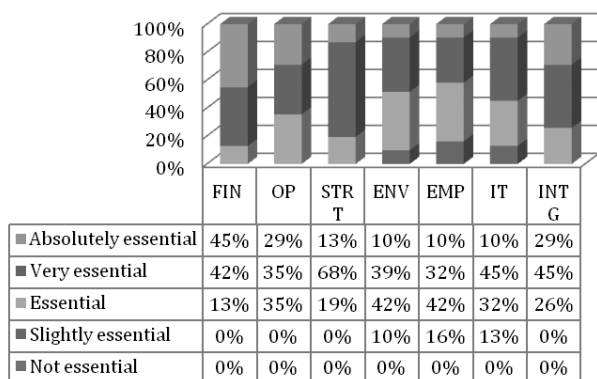


FIGURE 2. The Importance of Risk-Related Information Disclosure According to the Type of Risk

results indicate that the amount of disclosure for these two types of risk information is almost similar.

The percentage of location of risk-related information reported in annual reports based on the managers' observations is shown in Figure 3. The information is mostly disclosed in the Notes to Financial Statements sections (28%), followed by other sections (26%) (such as Corporate Governance Statement, Statement of Internal Control, Audit Committee Report), the Review of Operations (25%) and Chairman Statements (21%). This result could be influenced by the managers' focus on the disclosure of financial risk in compliance with FRS 132. FRS 132 requires companies to disclose all information regarding financial risks associated with financial instruments in the notes to the financial statements. Surprisingly, the second highest percentage of location of risks reported is in the other sections. Managers' disclosure of risk information in other sections of the annual reports is consistent with the Bursa Malaysia requirements that require companies to report risk-related information in their annual reports. Further analysis on the annual reports indicates that all managers use the disclosure template suggested by Bursa Malaysia.

Further analysis on the location of the risk information has also been undertaken. The results are shown in Figure 4. The results, excluding the location indicated by other

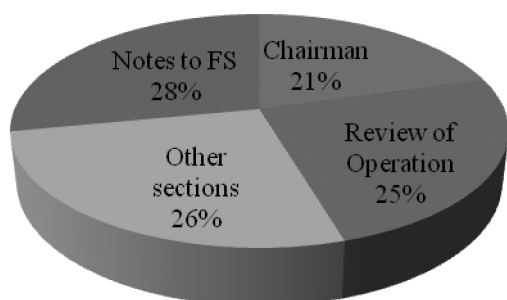


FIGURE 3. Location of Risk-Related Information Reported in Annual Report

sections, reveals the following: 38% of the information is located in Notes to Financial Statements sections followed by 34% and 28% in the Review of Operations and Chairman Statements, respectively. These results are inconsistent with the results found by Amran, Rosli and Haat (2009). Using content analysis of 100 annual reports of Malaysian public listed companies, their results indicate that risk information is mostly reported in the Chairman Statement, followed by the Review of Operations.

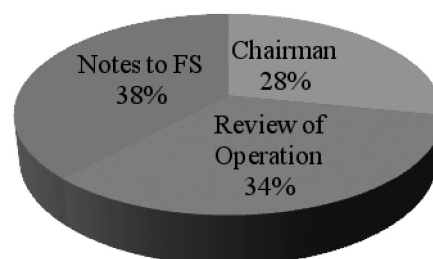


FIGURE 4. Location of Risk-Related Information Reported in Annual Report

#### MULTIVARIATE ANALYSIS

As mentioned earlier, the main objective of the study is to examine management perceptions and understanding of risk-related information concerning the extent of risk-related information disclosure. The discussion of results based on multivariate analysis is discussed in terms of the hypotheses developed. The findings are expected to enhance understanding on the managers' discretion in selecting risky information to be disclosed in annual reports. The hypothesised relationships are modelled as follows.

$$\text{The extent of disclosure} = \beta_0 + \beta_1 \text{RC} + \beta_2 \text{RD} + \beta_3 \text{FRD} + \beta_4 \text{NFRD} + \beta_5 \text{BR} + \beta_6 \text{CRI} + \beta_7 \text{MD} + \varepsilon_t$$

where the definitions for independent variables are given in Table 5.

In the above regression model, multicollinearity was tested using the variance inflation factor and tolerance levels, and found to be well within the satisfactory range. The results of the regression analysis are presented in Table 5 and are now discussed in terms of tests of each of the hypotheses established in this study.

*Hypothesis 1* Hypothesis 1 expects that managers' perception and understanding of the overall risk concept are positively significantly related to the extent of risk information disclosure in the annual report. The results of the multiple regression analysis are presented in Table 5. Table 5 reveals that the results are statistically significant at  $F = 2.556$ ,  $\text{sig} = 0.042$  and  $p = <0.1$ . The adjusted  $R^2$  is 0.266, which indicates that the model explains about 27% of the managers' overall perception and understanding of

risk information on the extent of risk-related information disclosure in annual reports. Of all the independent variables, Table 5 reveals that in relation to the managers' perception of risk-related information, three independent variables are found to be significant, at the significance level  $p < 0.1$  and  $p < 0.05$ . These variables are – understanding of overall risk definitions, financial risk definitions and the motivation of disclosure.

Most of the respondents agree that financial risks have a direct effect on monetary assets and liabilities. This is also known as internal risks, which are associated with cash flow and financial risks that are not managed cost-effectively. The mandatory requirement of the FRS on financial instruments disclosure may influence the extensive understanding of the managers in relation to financial risk definitions and its nature. In relation to motivation of disclosure, managers' decision to disclose risk information is based on the following factors: compliance with accounting standards requirements, getting the trust of investors in critical financial positions, reducing cost of capital and finance costs and improving accountability for stewardship, investor protection and the usefulness of financial reporting. Of these factors, improvement in accountability, stewardship as well as investor protection are among the factors that motivate managers to further increase their perception and understanding of risk-related information. Overall, in relation to hypothesis 1, three independent variables related to overall risks definition (RC), financial risks definitions (FRD) and the motivation of disclosure are accepted (MD).

*Hypothesis 2* Hypothesis 2 predicts that the years of working experience in the same industry may differ and, consequently, affects managers' perception and understanding of risk-related information. The chi-square analysis is used to

analyse the distribution of the extent of disclosure of risk information between two different groups of respondents, as shown in Table 6. The groups are reclassified according to the number of years of respondents' working experience, where Group 1 represents Less Experience with working experience of 1 year to less than 6 years while Group 2 represents More Experience with working experience of 6 years and above. Results in Table 6 show that there is a significant difference between the level of experiences and the extent of risk-related disclosure,  $X^2(4, n = 31) = 10.056, p = .40$ , Cramer's  $V = .57$ . Hence, hypothesis 2 is accepted. A possible explanation is that managers' working experience affects their judgement in deciding the type of risk information that should be disclosed in annual reports. This result is consistent with several prior studies (e.g. Solomon et al. 2000; Chand & White, 2006; Askary 2006; Haniffa & Cooke 2000). The individual expertise in a specific area or industry is expected to develop in line with the increased number of years of experience in the same area or industry and, consequently, influence their decision.

*Hypothesis 3* Hypothesis 3 tests the level of educational background of managers that influences their understanding on the concept of risk-related information that affects the extent of risk information disclosed in annual reports. Using the same technique of analysis as in hypothesis 2, the results of the chi-square are shown in Table 7. Table 7 reveals the results of the relationship between the different levels of educational background and the extent of risk disclosure in annual report. Managers' educational background is divided into four groups according to their qualifications (Group 1: Diploma; Group 2: Degree; Group 3: Master or above; Group 4: Professional). The results show that there is very minimal significant difference between various levels of educational background and

TABLE 5. Multiple Regression Results for the Management Perception and Understanding Affecting the Extent of Risk-Related Information Disclosure

R Square	.438
Adjusted $R^2$	.266
F	2.556
Sig.	.042

Dependent Variable: Extent of Risk-related Information disclosure

Variables	Beta	<i>t</i>	Sig.
Constant		1.774	.089
Risk Concepts (RC)	.103	.336	.740
Risk Definition (RD)	-.724	-2.010	.056*
Financial Risk Definition (FRD)	.463	2.276	.032*
Non-financial Risk Definition (NFRD)	.205	.821	.420
Benefits of Risk (BR)	-.338	-1.478	.153
Characteristics of Risks Information (CRI)	-.216	-.841	.409
Motivation of Disclosure (MD)	.845	3.466	.002**

\* Significant at 10% level (1-tailed test) \*\* Significant at 5% level (1-tailed test)



TABLE 6. The Chi-Square Test for Different Levels of Working Experience Affecting the Extent of Risk-Related Information Disclosure

Level of Experience	The Extent of Disclosure					Total
	None	Brief	QUAN <sup>1</sup>	QUAL <sup>2</sup>	COMP <sup>3</sup>	
Group 1: Less Experience	3 9.7%	1 3.2%	2 6.5%	9 29.0%	6 19.4%	21 67.7%
Group 2: More Experience	0 0%	3 9.7%	4 12.9%	2 6.5%	1 3.2%	10 32.3%
Total	3 9.7%	4 12.9%	6 19.4%	11 35.5%	7 22.6%	31 100.0%

Chi-square = 10.056 df = 4 p-value = .40 Cramer's V = .57  
 Note: <sup>1</sup>Quantitative <sup>2</sup>Qualitative <sup>3</sup>Comprehensive

TABLE 7. The Chi-Square Test for Different Levels of Education Background Affecting the Extent of Risk-Related Information Disclosure

Level of Education Background	The Extent of Disclosure					Total
	None	Brief	QUAN <sup>1</sup>	QUAL <sup>2</sup>	COMP <sup>3</sup>	
Group 1: Diploma	0 0%	0 0%	2 6.5%	0 0%	0 0%	2 6.5%
Group 2: Degree	3 9.7%	3 9.7%	1 3.2%	4 12.9%	0 0%	11 35.5%
Group 3: Masters and above	0 0%	1 3.2%	3 9.7%	3 9.7%	2 6.5%	9 29.0%
Group 4: Professional	0 0%	0 0%	0 0%	4 12.9%	5 16.1%	9 29.0%
Total	3 9.7%	4 12.9%	6 19.4%	11 35.5%	7 22.6%	31 100.0%

Chi-square = 26.824 df = 12 p-value = .08 Cramer's V = .537  
 Note: <sup>1</sup>Quantitative <sup>2</sup>Qualitative <sup>3</sup>Comprehensive

the extent of disclosure,  $X^2(12, n = 31) = 26.824, p = .08$ , Cramer's V = .537. Nevertheless, it can be concluded that the higher the level of managers' educational background, the more familiar are the managers with the concept of risk-related information. Consequently, their understanding of the concept of risk information will then influence the choice of information that they may disclose in annual reports. This result is consistent with Haniffa and Cooke (2000) when they tested the relationship between directors' personal characteristics such as race and education. Based on these results, hypothesis 3 is not supported.

#### SUMMARY AND CONCLUSION

The purpose of this paper is to examine the effect of management perception and understanding of risk-related information on the extent of risk-related information disclosure in corporate annual reports. Management perception and understanding are analysed in relation to the overall risk concepts, broad definitions of risks, definitions of detailed financial risks and non-financial risks, benefits of risk information and its characteristics, motivation to disclose risk information, type of risk information

disclosed and the location of disclosure. The analyses are based on information gathered from questionnaires distributed to selected managers of public listed companies in Malaysia.

The findings reveal that the managers' understanding of the overall risk concepts concerning the disclosure practices of risk-related information in annual reports are still at a moderate level, particularly relating to non-financial risk information. This can be attributed to the managers' focus on financial risks rather than non-financial risks as the former are mandatorily required in accordance with FRS 132 *Financial Instruments: Presentation* while the latter are voluntary in nature. The findings also reveal that the level of managers' understanding and perception of the risk-related information is not significantly different based on the level of managers' education and professional affiliation. However, the number of years of managers' working experience is significantly related to the level of managers' understanding and perception of the risk-related information. This infers that managers' expertise and experience are paramount in influencing their disclosure incentives and, consequently, improved risk reporting practices. More comprehensive disclosure of risk-related

information can potentially enhance the quality of financial reporting (Bushman & Smith 2003).

Overall, the results in this study highlight that enhanced perception and understanding of risk-related information among managers can lead to an increase in the managers' motivation to report more transparent disclosure of risk information in annual reports. Consequently, this is expected to improve the decision-making of investors and other users of financial statements.

There are some limitations in this study. First, this study focuses on the broad definitions of risk, and, as such, might not capture management perception and understanding of specific risk-related information. Future research may consider the relationship between management perception and understanding of more specific and detailed definition of each component of financial and non-financial risks. Second, the results in this study are based on a relatively small sample of 31 questionnaires. As such, the results revealed in this study may not capture the perception and understanding of risk-related information beyond the sample of this study. Future research may consider a larger sample from various industries in order to further understand the relationship between management perception and understanding of risk-related information and their incentive to provide the comprehensiveness of such information in the annual reports.

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