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"THE STUDY OF CORPORATE RISK DISCLOSURE IN THE CASE OF THAI LISTED COMPANIES"

CHALIDA KONGPRAJYA

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"THE STUDY OF CORPORATE RISK DISCLOSURE IN THE CASE OF THAI LISTED COMPANIES"

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Chalida Kongprajya

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Abstract

In this age of globalization, firms are automatically put into a more vulnerable position to risks. This affects both business operation of the firms and decision making process of stakeholders. Therefore, risk management and risk reporting is gaining more interest from business, as well as academic community.

In this paper, a developing Asian country, Thailand, is selected as a country of focus. The study composed of two parts. The first part is a review of accounting standards development and actual reporting practices in Thailand and other selected countries. It is found that standard development of Thailand, like other Asian countries, tends to follow the trend of international standard setting. Since Thailand is trying to gain its place in the world competition level, it may hardly be develop its own set of reporting standards regardless of international trend.

The part of empirical study then proceeds in performing content analysis on the sample of 30 annual reports of Thai listed companies. It is found that company size and level of company's risk potentially affect volume of risk disclosures in a positive ways. Firms in financial industry also seem to disclose more risk information than non-financial firms. Empirical result further uncovers specific areas on Thai risk reporting that improvement is needed, which are neutrality of disclosures, i.e., readers may need more specific disclosures that can inform them about potentiality in good or bad state of the event. More disclosures on future risks also likely enhance decision making of stakeholders. Existing level of monetary risks and financial risks is comparatively low. The tone of risks are found to be mostly positive, confirming the attribution theory that directors normally make disclose good news more than bad news.

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CHAPTER 1

Introduction

Introduction

As a result of globalization, business world is now becoming a borderless arena to compete. By higher speed and scope of transaction processing, firms automatically fall into a more vulnerable position to risks. As a matter of fact, no one can predict all the risks. The best possible solution might be to report known risks in the most complete and accurate way as possible.

Nowadays, risk management and risk reporting is attracting lots of interest from financial as well as academic community. Scope of the subject is not limited to giant financial companies anymore (Dobler, 2008). By having an effective risk management system, managers tend to obtain more information about risk factors, corporate risk management, and potential impact of risks on the firms' future performance. This information would contribute to a more effective risk management strategy of the firm.

These information about risk could then be distributed to outside stakeholders, who are not allowed to obtain information from internal sources. Risk information were proved to enhance decision making process of the readers, and by sharing information about risk, a classic issue of 'asymmetric information' can be alleviated. In a deeper level, the most potential benefit from risk disclosures could be a reduction in the cost of capital, as investors has gained confidence in operation of the company (Linsley and Shrives, 2000).

Nevertheless, in the real setting, management may hardly be willing to disclose all information about risks of the company, either it will impair the company's image, or secrets will be made public to competitors. By this reason, actual practice of risk reporting is still in a varying stage for companies in different background and context.

From previous studies, general disclosures level is found to be positively related to 'size' of the company (Firth (1979), Beattie et al. (2004), Beretta and Bozzolan (2004), Hossain et al. (1995) and Linsley and Shrives (2006). There are also evidences about positive correlation between company's risk level and disclosure level in the studies of Ahmed and Courtis (1999) and Malone et

al. (1993). Some studies also pinpoint greater disclosures of non-monetary risk than monetary one (Linsley and Shrive, 2006). The proportion of past risk disclosures is also found to be less than future risk (Woods and Reber (2003) and Beretta and Bozzolan (2004)). Last but not least, reporting of good risks versus bad risk is another area that evidence still be needed.

This paper will focus the study on risk reporting practice of a small developing country, Thailand, which was once potentialized as the fifth tiger of Asia. Passing a long history of ups and downs in economy, Thailand is still struggling to optimize its corporate transparency culture. From the pool of all companies listed in the Stock Exchange of Thailand, 30 companies with assorted characteristics were selected to fulfill the objective of study here. The sample will enable testing of differences in the volume of risk disclosure between companies with different size, risk level, as well as industry. The list and grouping criteria of chosen companies are illustrated in Appendix 1.

As Thailand is a developing country and its risk management methodology is still in an emerging stage, academic literatures in risk reporting field are unfortunately limited. One that could be mentioned is a comparative study of risk reporting amongst ASEAN countries performed by Russell and Joselito (1998). Apart from that, this dissertation is expected to be one of the fundamental study on current risk reporting practice in Thailand.

In the field of corporate risk disclosures study, many dimensions are worth examining because corporate transparency is an important gear piece that drives effective function of investment activities in capital markets. Quality risk reporting practice will provide confidence for general investors and prevent creation of overvalued stock that could do harm to company's value in the long run (Jensen, 2002). Therefore, it is logical that improvement in risk reporting practice will in turn contribute to efficient transactions capital market, i.e., the most outstanding effect is reduction in cost of capital (Linsley and Shrives, 2000).

Recognizing the importance of risk reporting, development in this area is expected to be made. To facilitate this evolution, insight in current risk reporting practice of Thai companies is

needed. In the first stage, the gap between actual practice of risk reporting and reporting standard will be determined.

Then, beyond country level, existing standards of Thailand will be compared to other world-class standards such as International Financial Reporting Standard (IFRS) or International Accounting Standard (IAS). By doing this, the gap in standard development can be further identified. This will lead to improvement in policy setting level.

The research here will begin with understanding of risk reporting standards in Thailand and other countries by reviewing relevant disclosure framework and academic literatures. There, development trend of the standards as well as important standards will be discussed. Potential pattern of standard development shall be implied and lessons from developed countries shall be learnt.

The latter part of the study will then examine actual disclosures made by samples of 30 Thai listed companies, in their annual reports of the period end closest to the 31st December 2010. Content disclosed in the annual reports will be codified by content analysis and then statistical tools will be applied to analyze those data. The relationship between companies' characteristics and level of risks will be examined. Different factors that affect volume or risk disclosures will be investigated, including size, industry, and risk level. After that, presentation style of risk reporting will be examined, i.e., monetary or non-monetary risk, good or bad risk, past or future information.

Finally, the conclusion will wrap up the result of all parts, discussions regarding practices in several countries will be synthesized to come up with potential development trend of Thai reporting standards, and the result from empirical analysis will identify specific areas for improvement.

It is expected that results from this study will be a starting point to understand tradition in risk reporting of Thai companies. From this point, weaknesses in current reporting practice can be identified, which would assist us along the way to improve Thai reporting standard in the future.

To fulfill the studies of risk disclosure in Thailand, future research would be welcomed on top of this study. It would potentially be a longitudinal study with larger sample size that will enable

better analysis of the trend overtime. Cross-country and industry specific studies can also be beneficial to understanding of management's risk disclosure motivations. In terms of methodology, content analysis could be replaced by a more updated method, e.g., a new approach adapted from social science study (Linsley and Shrives, 2006).

CHAPTER 2

Background of the study

2.1 Literature review on Risk and Risk disclosures

2.1.1 The Definition of 'Risk' and 'Risk Disclosures'

To begin the study, definition of 'risk' and 'risk disclosures' shall be provided to define the scope of this paper. When analyzing the content in selected annual reports, each sentence must be justified whether it is a disclosure about risk or not. To implement this procedure successfully, the meaning of 'risk' and 'risk disclosures' shall be drawn.

'Risk', in general sense, can be defined in many different ways. It is commonly used to signify hazard, threat, or harm (Lupton, 1999). Academically, the meaning of 'risk' has been evolving through times as new knowledge in risk theory and related fields were complied. In the primary stage, 'risk' was normally associated with the act of nature and perceived as uncontrollable. It can be basically described as "variability around expected value or expected losses" (Harrington and Niehaus, 2003). Then, following the invention of probability calculations, scholars proposed that 'risk' occurs where the future is unknown, but the probability distribution of possible futures is known (Miller, 1977).

The upcoming of mathematical methodology to estimate risks leads us to perception of 'risk' in a new dimension, which is not limited to the act of natural catastrophe anymore (Lupton, 1999). The modern view of risk involves "uncertainty as to the amount of benefits or loss". This embraces both potential gain as well as exposure to loss (ICAEW, 1998), unlike the pre-modern view where 'risks' only represent bad events (Linsley and Shrives, 2006). This view of risk will be further incorporated into definition of 'risk disclosures' in this study.

Both CICA and ICAEW frameworks suggested that risk disclosures should have focal points on several factors including sources of risk, types of risk and estimated future performance. Beretta and Bozzolan (2004) further translated this message into the definition of risk disclosures as *"a communication of information concerning firms' strategies, characteristics, operations, and other external factors that have the potential to affect expected results."* Integrating this framework with

definition of risk, which include both good and bad risks in previous section, 'risk disclosures' in the scope of this study can be defined according to Linsley and Shrives (2006) as "disclosure sentences that could inform the readers of any prospect, opportunity, exposure, hazard, threat or harm, that already impacted operation of the company or may pose an impact in the future. A sentence will be coded as risk disclosure sentence if it complies with any part of the 'risk disclosures' definition provided above. The word "risk" does not have to appear in every sentence that was defined as risk disclosures sentence. By this, 'risk disclosures' will include various types of sentences, for example;

Definition of certain risk:

"Credit risk refers to the risk stemming from the counterparty's failure to comply with the condition and covenants in the agreement agreed upon resulting in non-repayment of the debt which might incur losses to the Bank (Krungthai Bank, 2009, p.104)".

Description of risk management policy:

"The company minimizes potential losses which may arise from customer defaults by adjusting credit risk management criteria and processes (Kasikorn Bank Group, 2009, p.48)".

Explanation of future threat:

"With the cyclical demand from automotive manufacturer where new model will be launched every 3-5 years, the Company is facing the risk of uncertainty income from jig products (Aapico Hitech, 2009, p.32)."

2.1.2 Risk Disclosure Literatures

The studies of corporate risk reporting were performed in several aspects, and in several countries. Beginning from a study regarding the standards in risk reporting, Dobler (2008) has performed a study about 'incentive for risk reporting' by extensive comparison of disclosure standards in several countries, especially the developed one such as the US, UK and Germany. The standards

from different part of the world were compared and analyzed, finally it concluded with an explanation on risk reporting incentive based on existing framework such as Agency theory, Proprietary theory, and Signaling theory. In addition, the study of Ball, Robin, and Wu (2002) further examined the incentive for risk reporting in the case of Asian countries.

Another noteworthy study of Beretta and Bozzolan (2004) also contributes highly to our understanding on a multi-dimensional framework for risk analysis. It is proposed that quality of risk reporting not just depend on 'quantity' of the disclosures, but also its 'richness'. Also from this study, it is evidenced that existing reporting frameworks are in the 'piecemeal' approach, lack of comprehensiveness in all risk aspects. This is also supported by the study of Young & Guenter (2003) and Dobler (2008). Specific study on this issue is done based on the FAS no. 119 and 133 standards by Cabedo and Tirado (2004).

Apart from the study on reporting standards, numbers of researches in this field were performed to learn about several determinants of corporate risk disclosures. Linsley and Shrives (2006) has studied about factors that affect level of company's risk reporting based on the sample of 79 UK listed companies. They hypothesized company's 'size' and 'level of risk' as two determinants of the risk disclosures. In that study, positive association between company's size and level of risk disclosures was identified. This result is in accordance with another study of Beretta and Bozzolan (2004), which were done based on data of Italian firms. It is also in accordance with many similar studies that were performed in social disclosures field, namely Beattie et al. (2004), Firth (1979), Hossain et al. (1995), and Hackston and Milne (1996). Nevertheless, there is a contradict result from the study of Campbell et al. (2003) on UK companies.

Regarding the effect of company's risk level on the level of risk disclosures, Linsley and Shrives (2006) has revealed a negative relationship between these two variables. By using the "EcoValue'21 index to measure environmental risk, they found that companies with higher risk rather disclosed less risk information in their reports. In other studies, different measurement of company's risk was applied as well. In the study of Ahmed and Courtis (1999), 'leverage' was used to measure

level of company's risk. In that case, they identified no significant relationship between this index and level of risk reporting. Same result is also discovered by Hossain et al. (1995).

On another dimensions, characteristic of risk disclosures in various countries is also a topic of interest. Linsley and Shrives (2006), again have also examined nature of risk reporting made by the UK public companies. Firstly, it is shown that number of 'non-monetary' risk disclosures significantly exceeds the 'monetary' one. This is simply explained by difficulty in quantification of risks, i.e., it may not be possible to accurately estimate exposures of risks in all cases. This can also be supported by the study of Kajuter and Winkler (2003), Beretta and Bozzolan (2004), Linsley and Shrives (2006), and Mohobbot (2005) which were performed based on disclosures of German, Italian, UK and Japanese companies respectively.

Next, it is also evidenced that number of past risk disclosures potentially be higher than future risk disclosures. On the side of research regarding time dimension of risk reporting, Beattie et al. (2004) performed a research based on annual reports of 27 UK firms from three industry sectors. It reveals that only 6.6% of total text units were classified as forward-looking information. Another valuable study was produced by Beretta and Bozzolan (2004). They analyzed MD&A section in the annual report of 85 companies who are listed on the Italian Stock Exchange and found that those firms rather concentrate their disclosure on past and present risk, not future risks. Limitation on future risk disclosures were also confirmed by the studies of Woods and Reber (2003), Kajuter and Winkler (2003), Lajili and Zeghal (2005) and Mohobbot (2005), which content analysis were applied on the annual reports of the UK, German, Canadian and Japanese firms respectively.

Last but not least, the comparison between level of 'good' risk and 'bad' risk disclosures was also explored. Building on the block of available theories, it could happen either way. The number of good risk disclosures could surpass the bad one as the company tries to cover bad news that can harm reputation of the companies (Skinner, 1994). However, under the 'attribution theory' it could also happen that bad risk disclosures may exceed the good one. This is because self-interest directors have an incentive to clarify bad news in a positive way to protect themselves from being blamed in the

future. Judged by the result from realistic testing, available study in this topic by Linsley and Shrives (2006) found that good risk disclosures rather overwhelmed the bad one in the case of UK listed companies.

2.2 Research objectives

After definition of 'risk' and 'risk disclosures' were made, research objectives will now be stated to further shape up the scope of study. For this paper, its main objective is to obtain understanding of current risk reporting standards and practices of the selected Thai companies. In a more detail level, the goal can be described as;

1) To review existing reporting standards and standard development of Thailand, in compare with countries around the world.
2) To examine nature and level of risk disclosures of the selected Thai companies.
3) To investigate several factors that potentially influence level of risk disclosures of selected Thai companies, namely, company's size, industry and level of risk.

Description of hypotheses set in response to each research objective will be presented in the latter section. At last, it is expected that understanding of Thailand risk reporting framework and its development will imply plausible trend of future improvement in the reporting standards. The result from empirical study will further identify characteristic of risk reporting that improvement is needed.

2.3 Scope of the dissertation

According to limitations in time and resources, the study has to be focused in certain ways, i.e., the location of study, the number of samples. Thailand is selected as a country of study, with the sample of 30 Thai companies included (see the list of selected companies in Appendix 1). The sample

is selected from the pool of companies listed in the stock exchange of Thailand, assorted by characteristic that will be tested in the hypotheses.

2.4 Proposed outlines

The study will start off from the introduction in Chapter 1, which will provide inspirational background, objectives of the study, brief description of research methodology, as well as limitation to be noted. Then, Chapter 2 will further clarify basis of the study, including literature review on definition of 'risk' and 'risk disclosures' in the scope of this study. Research objective will be officially formed together with scope of the dissertation.

Chapter 3 will then take you through literature review on international risk reporting practices. Available literatures and reporting standards in Thailand and some noteworthy countries will be examined and discussed in this section.

After risk reporting standards were examined, the part of empirical study will begin in Chapter 4. Hypotheses formation based on previous literatures will be presented there. Then, Chapter 5 will explain in detail about the approach for empirical study on risk disclosures. This includes methodology on data collection as well as data analysis.

Result of the study will be presented and interpreted in Chapter 6. Lastly, extensive discussion of results together with final conclusion will wrap up the study in Chapter 7.

CHAPTER 3

Literature review on International Risk Reporting Practices

3.1 Review of risk reporting practices in developed countries

To fulfill the first objective of this study, risk reporting practice in several countries around the world will be reviewed in this section. Understanding of peer practices will enable Thailand to catch up with the current trend as well as learn from experiences of peers in developed country group. Then, the room for improvement in Thai risk disclosures can be identified more relevantly.

3.1.1 International Practice

Before examining reporting practices in each country, overall theme of international risk disclosures shall be provided as the benchmark. Looking at international reporting standard, the review of literatures reveals that risk reporting standard still be in a piecemeal approach, i.e., lack of comprehensiveness in all risk aspects of the firm (Beretta and Bozzolan 2004). Existing reporting standards in highly regulated countries are concentrating only on some aspect of firm-wide risks (Young & Guenter, 2003).

One example of the lack in comprehensiveness could be FAS no.119 and 133 of the Financial Accounting Standard Board, which require only the disclosure of market risks arising from utilizing financial instruments (Cabedo and Tirado, 2004). Under the holistic risk reporting approach, this requirement may not encourage a complete picture of corporate's risk reporting as it specifically requires only disclosure of market risks. Although disclosures on market risks were proved to be beneficial to investment decisions (Linsmeier, Thornton, Venkatachalam, and Welker, 2002), it obviously cannot cover other significant risks, namely non-financial risks and financial risks apart from market risks.

The international disclosure standards of various accounting body such as IAS no.32 and 39 of International Accounting Standard Board rules also represented similar piecemeal concept of reporting requirement on risks related to financial instruments (Dobler, 2008).

Apart from that, the international as well as the US standard were commented in that it does not require disclosures on risk forecast. This is in contrast to German standard (GAS no. 5), which is deemed to be more rigorous in this aspect.

In addition, there is recently a controversial on voluntary allowance of risk disclosures, especially for going concern uncertainties under IAS no. 1.23 and its special opt-out condition in IAS no. 37.92. The opt-out clause stated that when going concern uncertainties is in 'extremely rare cases' and that by the disclosure, the firm can expected to be *"prejudiced seriously the position of the entity in a dispute with other parties"*, the firm is permitted to pass over the disclosure on that contingency.

In fact, currently there is an initiative to encourage managements to make voluntary disclosures beyond the requirements. In that instance, management can apply alternative framework pronounced by various accounting regulatory bodies as guidance, for example, AICPA (1994) has provided a guidance to develop quality of financial reporting. The guideline suggested reporting on five topics, which include 1) Financial and non-financial data 2) Management's analysis of financial and non-financial data 3) Forward-looking information 4) Information on managers and stakeholders and 5) Company background. Further, in 2001 following growing interest on valuation risk of 'intangible assets' issues, FASB (2001) reporting guideline on this topic was also added to the existing five categories (Beretta and Bozzolan 2004).

Therefore, expectation on the trend for international improvement in the future could be to enhance comprehensiveness of corporate risk reporting, i.e., guidance regarding disclosures of non-financial risks and non-market risks should become available. The trend of forward-looking risk reporting will come along as it benefit in decision making is recognized. The options on voluntary disclosures will have to be revisited.

3.1.2 The United States

In the overall pictures, the US regulations on risk reporting more or less reflect the same piecemeal approach as the international standards, added that the reporting on risk forecast is not mandatory (Dobler, 2008). However, recognizing a volatile nature of business world, the American Institute of Certified Public Accountant (AICPA, 1987) has issued a 'Report of the Task Force on Risk and Uncertainties' in order to reestablished risk reporting in a formal way. Later, AICPA (1994) further proposed the 94-6 Statement of Position to encourage companies to report relevant risks and uncertainties in their financial statement. And as also mentioned, the FAS no. 119 and 133 were issued to deal specially with risks from financial instruments. Especially for the US SEC registrants, FRR no. 48 in 1997 requires disclosures of market risk from abrupt changes in interest, foreign exchange rates, stock and commodity prices (Roulestone, 1999). And to improve quality of voluntary disclosures, the directives of AICPA (1992*)* should be mentioned as it was issued to provide additional guidance on the five topics listed before.

Nevertheless, academic literatures show that these compulsory disclosures contribute very lightly on betterment of risk disclosure quality. The study of Hodder, Koonce and McAnally (2001) presented that risk disclosures of the US companies disperse throughout financial statements, both in Management Discussion and Analysis (MD&A), as well as various notes to financial statements. This makes it more complex for the investors to gather and synthesize all information to come up with reliable evaluation of companies' risk. On contrary, there were also other studies that argued for value of these reporting. According to Beretta and Bozzolan (2004), these include the studies of Jorion (2002), Linsmeier, Thornton, Venkatachalam and Welker (2002) and Rajgopol (1999).

From a more recent study, in 2002, S&P has performed a study regarding 'Transparency and Disclosure' practice based on actual data of the U.S. companies. It was presented that the companies' transparency was mostly communicated in the form of financial information. Result from this study suggested that there may be a lack in disclosures regarding ownership structure, investor rights, and board and management structure in the US accounts.

In conclusion, the current stage of risk reporting practice in US shares similarity with the international approach, i.e., the regulations still be issued in piecemeal approach, focusing on specific issue. The main concern on risk reporting seems to be financial risks, in which some numbers of regulations were pronounced to deal specifically with this, for example, FAS 119 and 133. There also be an argument on voluntary disclosures such as risk forecast. An attempt to encourage risk disclosures in a more holistic manner is still controversial, some studies support effectiveness of regulations, while some argues that the effort was proved in vain.

3.1.3 The United Kingdom

The first step to development of modern risk reporting in the UK can be traced back in 1992. The "Cadbury report" in that year made a breakthrough by suggesting that corporate risks should be identified, evaluated, managed and also publicized. Then in 1993, the Operating and Financial Review (OFR) was proposed for the first time to the UK listed companies, although not compulsory. The OFR is more or less similar to MD&A, which also covers a review of key risks (Beretta and Bozzolan, 2004).

In 1997, ICAEW prepared a report to officially reflect risk reporting practice of UK companies. The "Financial Reporting of Risk: Proposals for a Statement of Business Risk" contended that risk disclosures in UK are still insufficient. The report then encouraged UK firms to disclose more about risks, as well as risk quantification method (Cabedo and Tirado, 2004).

Later in 1998, the London Stock Exchange further issued the Combined Code on Corporate Governance, which encourages UK listed companies to maintain a sound system of internal control, and also report these mechanisms to stakeholders, noted again that this is not a compulsory regulation (Woods and Reber, 2003).

Also in the same year, the Combined Code of Best Practice in Corporate Governance issued by the Turnbull Committee in 1998 gave support to the intention set out in Cadbury report on

corporate governance, basically by promoting the same practice of maintaining, reviewing and reporting of corporate internal control. With the support of ICAEW, the Turnbull Report (1999) was then issued to assist firms in adopting principle D2 of the Combined Code, i.e., maintaining a sound system of internal control, and also disclose the practice to stakeholders.

Apart from examination of regulations, on the side of academic research, it is shown that UK companies still disclose quite little about risk in its operating and financial review. ICAEW (1998) found that only 13% of sample companies properly clarified current trends that could affect future operation, and only 18% did explain relevant risks of its core operation that could affect future operating results.

Focusing on the disclosures of financial risk, which is normally concerned by investors, Adedeji and Baker (1999) showed that the implementation of FRS 13 can boost up financial risk disclosures. This result is also supported by Dunne et al. (2004). However, we must note the evidence of complexity in implementation of this guidance in the study of McIIwraith and Dealy (2000).

Another noteworthy empirical study is from Linsley and Shrives (2006), which is performed on the annual reports of 79 FTSE100 non-financial companies. This research investigated the relationship of company size and level of risk disclosures, and it found that this relationship exists. The paper also study regarding disclosure style, and its result revealed that majority of risk disclosures made by the U.K. companies were general statement of risk policy. This kind of information could promote risk management development, however, they are not useful enough for institutional investors (Solomon et al., 2000), who usually expect a more specific detail of risk.

Another interesting result is about quantification of risks that are disclosed in the report. The study uncovered that only 5.3% of all risks disclosed were quantified, which still considered quite low when comparing with the result of Italian company that has 15.5% of total risks quantified (Beretta and Bozzolan, 2004). However, we should consider that the lack of risk quantification may be rooted from intrinsically narrative nature of risk rather than directors' unwillingness to disclose it.

Regarding time dimension of risk disclosure, Linsley and Shrives (2006) found that UK companies significantly publicize forward looking information, in contrast to Italy (Beretta and Bozzolan, 2004). Nonetheless, this result is contradicted to previous studies on UK firms such as studies of Woods and Reber (2003) and Beattie et al. (2004). The difference could arise from different definition of forward-looking risks.

Last but not least, the study highlighted another issue, which is similar to that found in the US. Risk disclosures of U.K. companies are also scattered around the company's report. It cannot be ensured regarding completeness of risk reporting, and also it is difficult for the users to summarize all relevant information to come up with proper assessment of overall risk.

In conclusion for the U.K. risk reporting practices, continuous improvement in the standards and relevant guidance were presented. This signals that regulatory bodies in the U.K. do recognize importance of risk disclosures. Furthermore, the topic is also in the attention of academic researchers and public, as quite a number of study pieces in this area were conducted. Nevertheless, result from the study has identified some areas for future improvement as well, for example, existing disclosures are mostly neutral statements of risk policies, which are quite not useful in informing readers of any potentiality of good or bad risks. Higher level of risk quantification is also needed to help the readers assess impact of the risk in monetary terms. Lastly, readers would prefer a more holistic approach of risk reporting where information regarding principal risks and risk management strategies are summarized and organized in proper location.

3.1.4 Germany

From review of available literatures, Germany disclosures standards received some positive comments regarding its comprehensiveness, in contrast to international standard as well as US and UK standards.

Under the German Accounting Standard (GAS), all disclosures about risk forecast and relevant accompanied information are compulsory, referring GAS 5.9-10, 5.18, 15.83-91 (Dobler, 2008). This poses a dramatic difference from other standards, which only encourage these disclosures but do not require them. Under GAS, the disclosures must cover all risks faced by the companies, including non-financial risks and non-market financial risk. It also mandates explanation on corporate risk management and risk forecasts. Theses information are expected to be clarified in self-contained risk report, which is included in the management report section, equivalently to MD&A section of the US accounts, or management commentary under IASB (2005) regulation.

However, some academic researchers have argued that despite comprehensive, the German standard requires less specific and detailed information than those international and US standards (Dobler, 2008). Especially the study of Kajuter (2001), it is unveiled that although the requirements were set out, they cannot ensure effective reporting of risk. GAS 5, even if comprehensive, cannot enforce complete discussion of risks as intended.

3.1.5 Other Developed Countries

Review of available literatures generally suggests similar trend of risk reporting issue in developed western countries, that is risk disclosures still lack of specific detail to prove its usefulness to investors. In Canada, the directives from the Canadian Institute of Chartered Accountants (CICA, 2001) were announced to advice Canadian firms to made public of information regarding 1) Mainstream business and strategies 2) Critical success factors and 3) Capability to deliver results 4)

Previous and future operating results and 5) Risks. Even so, the analysis of MD&A of 300 Canadian listed companies by Lijili and Ze'ghal (2003) exhibited that disclosures made are dominated by narrative content, which is insufficient in specificity and depth. This result can be noted comparable as an issue that Linsley and Shrives (2006) identified from the test of U.K. companies.

In Italy, the study of Beretta and Bozzolan (2004) found that Italian firms willingly disclose their future strategies (35.9%), however, expected impact from that strategies were rarely communicated (15.5%). Even the direction of forecasted result, i.e., positive or negative, are hardly found. It is also discovered that Italian accounts usually lack of information about decisions and actions taken to manage risks, i.e., only 16.2% of all firms provide this information. This indicates similar trend of disclosure insufficiency like several countries that we have mentioned before.

In Australia, the study of Calon, Loftus and Miller (2000) evidenced instability of voluntary disclosures made by the sample of annual reports from 54 Australian mining companies. A similar issue regarding options in voluntary disclosures was also noted for the international accounting standard.

3.1.6 Comparison across developed countries

Let us begin from the simplest view of two-country comparison, i.e., between the US and the UK model. Collins et al. (1993) presented his comparative study for risk reporting in MD&A section between the US and UK firms. The results show that UK firms made more disclosures about risk, uncertainty and forward-looking information. The rationale behind this seems to be that UK companies could understand the guidance with a more integrated view, and thus able to make a more comprehensive disclosures of risk.

Proceeding to a comparison across all western countries, the first finding to be noted could be a 'piecemeal' nature of various standards. Most standards were found to focus on financial market risk reporting only. The remaining risks of corporate such as non-financial risk or non-market

financial risks are quite not emphasized. Disclosures of those secondary risks are allowed to be made just voluntarily based on judgment of management. The exception should be noted for the GAS 5 of Germany, which requires comprehensive risk reporting of all risks faced by the companies. Comparing on this aspect, the study of Schrand and Elliott (1998) suggests that the comprehensive approach of GAS 5 can better promote German firms to adopt risk reporting requirements that fit the companies. On the other hand, as noted above, some studies have also shown that complete regulations may not ensure effective reporting of risk in Germany.

Another dimension of risk reporting that should be mentioned is a 'time' dimension of disclosures. By reviewing various standards, an effort to promote communication of forward-looking information (future risks) can be detected. This includes directives such as ICAEW 1998, 1999, 2000, CICA 2001, and IFAC 2002. Under these directives, not only forward-looking information is encouraged, a more comprehensive view of corporate risk is also stressed.

To compare various standards in other noteworthy perspectives, figure 3.1 below was extracted from the study of Dobler (2008). A new column of the UK on the far right is added to the original comparison, in order to fulfill the research objectives here.

Figure 3.1: Comparison of risk reporting requirements in the USA, according to IFRS, Germany and the UK

	USA	IFRSs	Germany	UK
Regulatory approach	piecemeal approach	piecemeal approach	comprehensive approach	piecemeal approach
Major regulation	▪ SFAS 5, 131, 133; SOP 94-6 ▪ SEC Regulations, FRR 48	▪ IAS 1, 37; IFRS 7	▪ Professional standards GAS 5, 20 ▪ §§ 289(1), 315(1) Commercial Code	▪ ICEAW 1998, 1999, 2000, and 2002 ▪ FRS 13 ▪ FRS 29
Reporting instruments	▪ notes ▪ SEC forms, MD&A	▪ notes ▪ management commentary proposed ▪	▪ separate risk report in the management report ▪ few note disclosures	▪ notes ▪ OFR, MD&A
Notion of risk	various, mainly uncertainty-based	various, mainly uncertainty-based	upside and downside risk, GAS 5 focusing on downside risk	various, mainly uncertainty-based
Risk management disclosures	mainly concerning use of financial instruments	mainly concerning use of financial instruments	covering entire corporate risk management	mainly concerning use of financial instruments
Focus of risk disclosures	financial and market risk, contingencies	financial and market risk, contingencies	risk of any category, financial risk highlighted	financial and market risk, contingencies
Disclosure of risk concentrations	financial risk, major customers and other	mainly financial risk	any risk concentration	mainly financial risk
Disclosure of going concern uncertainties	required only by audit standards (SAS 59)	required in notes	required in risk report and in notes	Required in notes (a single location in company's financial statement)

	USA	IFRSs	Germany	UK
Risk quantification	required for financial risk, for contingencies, where practicable	required for financial risk, for contingencies, where practicable	required for any risk, where practicable, financial risk highlighted	required for financial risk, for contingencies, where practicable
Disclosure of risk forecasts	not required	not required	required	not required
Special opt-out clause	no	yes (IAS 37.92)	no	no

3.2 Risk reporting practice in Asian countries

Due to risk reporting is just an emerging field in Asia, not much academic piece of works are available for review at the moment. In this section, brief description of development stage in some countries will be provided, on the aspects that were considered relevant to the discussion here.

In overall picture, reporting standards of Asian countries mostly influenced by common law sources of developed countries, i.e., UK, US, or IAS (Ball, Robin and Wu, 2002). Summarized from various sources of evidence, Asian countries are in the age of developing its financial transparency. As they become more globalized, there will be greater need for them to turn around their risk reporting practice, in order to compete in the world stage.

3.2.1 Hong Kong

Being a former British colony, accounting standards in Hong Kong was strongly influenced by the UK standards (Ernst & Youngst, 1993). However, after 1993, it has switched to be a follower of the IAS instead. From the study of Price Waterhouse (1995), Hong Kong's standards can materially represent the IASC statements.

3.2.2 Malaysia

Although the country has been ruled by British for a long period, its accounting standards rather follow the pattern of the IAS as it has been adopting the IAS since 1977. Their issuance of accounting standards is under the control of the Malaysian Association of Certified Public Accountants (MACPA), who reviews new standards announced by the IASC and modify them to suit local needs. This will subject to the time lag of not more than 5 years, more specifically 2-3 years on average (Ball, Robin, and Wu, 2002).

3.2.3 Singapore

Development of Singapore accounting standards in the initial stage follows a similar pattern with Hong Kong and Malaysia. Initially, it followed the UK, who was a leader of common law invention. Nonetheless, after the Singapore Institute of Certified Public Accountants (ICPAS) was set up in 1987, the country has changed its school of standards to the IAS one instead. Although some adjustments must be made before adopting IAS standards locally, the change is considered immaterial, and thus, the Singapore standard can more or less reflect the original standards set out by the IASC (Ball, Robin and Wu, 2002).

3.2.4 Thailand

The case of Thailand is quite different from other countries that we have mentioned. Gray et al. (1984) described Thai accounting standards as a mixed approach. It is significantly influenced by the "IAS", yet moderately affected by the UK standard at the same time. From the more recent study of the Thai Accounting Standard (TAS) especially the reporting standards, it was found that in the absence of the local Thai financial reporting standards, the IAS as well as IFRS are encouraged as guidance for voluntary disclosures.

From review of the TAS, some relevant regulations were noted. Firstly, to promote the integrated risk disclosure approach, the TAS no. 1 encourages management of Thai companies to voluntarily present a financial review that details significant financial performance, financial position, and major uncertainties that the company faces. This presentation could be made outside their financial statements. However, as noted, this standard on firm-wide risk is just a 'voluntary' guidance, not a requirement.

In terms of risk measurement, TAS 1 (para.116) provides a general guidance that the notes should include information about the key assumption in expectation of future performance, and other key sources of estimation uncertainty at the balance sheet date. These items could carry a significant

risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year. Nevertheless, this guideline only provides a general approach to risk measurement. It may hardly assist companies through risk quantification process in specific cases.

In a more detail level, various rules were issued to deal specifically with risk item in the financial statement. One that usually be in the interest is the TAS 32 regarding financial instruments. It requires all Thai companies to disclose extent, nature of financial instruments, including significant terms and conditions that may affect the amount, timing and certainty of future cash flows. In addition, the basis of fair value measurement is also mandatory. It also forces reporting of credit risk exposure of these financial instruments.

Apart from financial risks, going concern risk is another material risk to be concerned. TAS 1 stated disclosures requirement for uncertainties about going concern. Thai companies are called for disclosure of material uncertainties relating to events or conditions that may cast significant doubt upon the entity's ability to continue as a going concern.

Remaining items related to corporate risk may include reserves for several losses that could occur and affect operations of the company in the future. TAS 1 also mandates the company to disclose nature, indication of uncertainties and amount of expected outflows from the reserve set out. Thai standard also covers the risk in significant assets valuation as suggested in TAS 36 impairment of assets, TAS 38 intangible assets and TAS 40 investment property. Disclosures for general contingent gains and losses are also stated by TAS 18, and the effect of changes in foreign exchange rates in TAS 21.

There are also some standards, which are not covered by the TAS. In those cases, TAS encourages companies to make voluntary disclosures following the guidance of the international standard, for example, some part of the IAS 39: Financial Instruments: Recognition and Measurement, IFRS 7: Financial Instruments: Disclosures.

From reviewing the TAS, similar tone of concentration on reporting of financial aspect of risks can be observed. Numbers of specific regulations were issued to guide the disclosure on risks

that are quantifiable, e.g., risks from financial instrument, foreign exchange risk, etc. Although there is an attempt to make an integrated risk reporting as stated in TAS no.1, it is hard to expect a complete disclosure of risks. Firstly because the risk is only be made on a voluntary basis. But even if it is required, there would still be a challenge to judge whether subjective content provided in the report represents materially complete picture of corporate risks or not.

3.2.5 Comparison across Asian countries

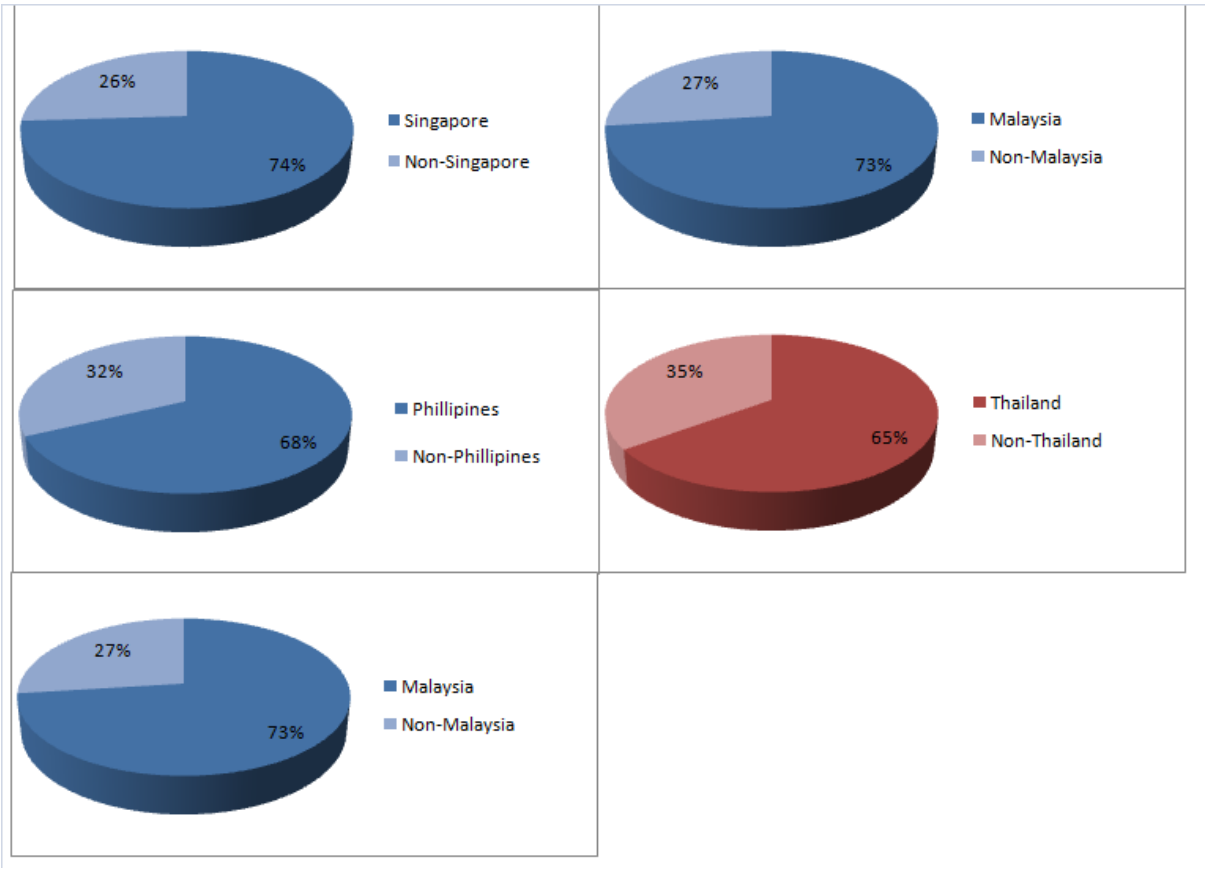
From discussion of each country, the first common characteristic of Asian risk reporting is that all Asian countries seem to follow the western in terms of risk disclosures standard setting, with some lag years. Their regulations on risk reporting normally be adopted from developed countries in western zone, especially the international standards such as the IAS or IFRS. This implies that development to be made on reporting standards of Asian countries potentially be the adoption of the more updated standards from those developed countries, and the adaptation of international standards to suit local needs. Since they have to follow those influential nations in the world competition stage, it would be almost impossible for Asian countries to develop their own set of reporting standards independently.

From overall revision of Asian countries' practice above, standards adopted are considered up to date to a certain level, with average lag of no more than five years. From examination of Thai standards, issues in attention such as financial instruments, or impairment of intangible assets, were included to the standards in a timely manner.

From a more sophisticated viewpoint, the study of Russell and Joselito (1998) presents comparison of financial disclosures standard amongst Asian countries as of the year 1993. In this study, general disclosure rules of five countries were included, i.e., Indonesia, Malaysia, Philippines, Singapore, and Thailand.

On the first perspective, all disclosure requirements (De Jure disclosure) from all countries were compiled into a single pool. Up to 530 requirements were identified, with 177 requirements (33%) marked as ‘common requirements’ across the group. Considering proportion of individual country’s regulation to total common requirements, Singapore seems to be a leader in quantity of disclosure requirements, with the highest proportion (74% of total common requirements), following by Malaysia (73%), Philippines (68%), Thailand (65%) and lastly Indonesia (52%). Figure 3.2 presents these proportions graphically, the whole pie represents total common standards of 530 requirements and the portion in each picture stands for percentage of standards that came from each country.

Figure 3.2: Proportion of common standards from each country



Moving on the next aspect, percentage of disclosure requirements shared between pairs of countries can be exhibited in figure 3.3. The table can be interpreted by reading from the column side. It will present proportion of disclosures in the column heading countries that are common with disclosures in the country of selected row, for example, from the first column, 83% of Indonesia disclosures are common with Malaysia.

Figure 3.3: Correlation matrix of disclosure requirements in ASEAN

	Indonesia	*Malaysia*	*Philippines*	*Singapore*	*Thailand*	*Average (Row)*
Indonesia	-	59	63	58	66	61
Malaysia	83	-	74	92	90	84
Philippines	82	68	-	67	75	73
Singapore	83	93	74	-	90	85
Thailand	83	80	72	79	-	78
Average (Column)	83	75	71	74	80	-

Source: Russell and Joselito (1998)

From figure 3.3, Singapore again led up other countries by having the average shared requirements of 85% (row 4). This indicates that, on average, 85% of standards in other countries were shared from Singapore, who seems to be the trend setter. It can also be observed that there are very high correlation between Singapore, Malaysia and Thailand. This implies the adoption of accounting standards from the same sources, which is the IAS. Figure 3.4 further exhibits intersection of the IAS to the standards in each country. As expected, Malaysia, Singapore and Thailand express high percentage of disclosures adopted from the IAS.

Figure 3.4: Application of IAS disclosure requirements in ASEAN

Country	*No. of IAS disclosures required (n = 200)*	*Proportion of IAS disclosures (%)*
Indonesia	110	55
Malaysia	178	89
Philippines	138	69
Singapore	186	93
Thailand	172	86

Source: Russell and Joselito (1998)

After understanding the situation of "De Jure" disclosures, the paper of Russell and Joselito went on to study actual disclosure practice (De Facto disclosures) made by Asian companies in their annual report. The result from analyzing the content of 145 companies in five countries shows that the average compliance rate are quite low in all countries, more specifically, only about half of requirements were materially complied in the real practice. This signals a need to improve enforcement system of risk reporting standards, but definitely, with the consideration between cost and beneff improved reporting.

In conclusion, comparison of risk reporting practice amongst Asian countries further confirmed us the influence of international standards on Asian standards development. From all countries that were examined, there were high proportions of standards that were adopted from the IAS. The leader of the group seems to be Singapore, who possessed the highest proportion of shared standard with IAS, also the highest proportion of standards shared by other Asian peers. The lag time of Singapore adoption is also the shortest. The country of focus, Thailand, seems to be in the middle among the group, after Singapore and Malaysia. From examination of several Thai standards, it is shown that much of the concerns in international level were incorporated into the standards of Thai companies, e.g., holistic approach of risk reporting, guidance on reporting of financial risks, etc. If

there is a need to define the room for improvement for Thailand, it could be in the first stage that Thailand studies the adoptions of several standards done previously by Singapore and Malaysia. This could more or less assist the developing country through the process of standard modification to suit local needs. Then, Thailand can move on to the next level by leading adoption of international standards ahead of other Asian countries.

CHAPTER 4

Empirical Study

4.1 Hypotheses Formation

After framework of 'risk' and 'risk disclosure' is defined, this section will present hypotheses to be tested. Firstly, to study the effect of company's characteristic on level of risk reporting, set of hypotheses (H1-H3) will be formed according to each attribute of interest, i.e., size, industry, and risk level. Then, the latter set of hypotheses (H4-H6) will further explore nature of risk reporting regardless of the firm's characteristic, i.e., risk quantification, time dimension, etc. These hypotheses are deduced from literature reviews in this area. The development of each hypothesis will also be provided below.

Hypotheses 1 – The effect of company's size on risk reporting

The correlation of company's size and number of disclosures are supported by both 'Agency theory' and 'Legitimacy theory'. Under the theories, large companies normally performed various types of activities, which generate wide ranges of impact to society as a whole. By this, larger companies normally attract more interest from various groups of stakeholders in the society. Thus, it is common that these organizations must satisfy higher expectation on its disclosures, including risk disclosures (Cowen et al., 1987).

From academic research in several countries, this correlation is also evidenced. Linsley and Shrives (2006) found a positive relationship between volume of risk disclosures and company size from their study based on annual reports of 79 UK companies. The same type of relationship was also confirmed for Italian companies by the study of Beretta and Bozzolan (2004).

The association can also be supported by referring to studies of general and corporate social disclosures, which potentially have an implication on study of risk disclosure here. Stated in Linsley and Shrives (2006), this includes the studies of Firth (1979) and Beattie et al. (2004) that reveal this positive relationship in UK companies and Hossain et al. (1995) for non-UK companies. Also summarized in Hackston and Milne (1996), majority of studies presented that larger companies tend to make higher level of social disclosures. This includes the study of Belkaoui and Karpik (1989),

Cowen et al (1987), Kelly (1981), Pang (1982), Patten (1991, 1992) and Trotman and Bradley (1981). Nevertheless, there is a contradict result from the study of Campbell et al. (2003) on UK companies.

Due to the majority of literatures support existence of positive relationship between company size and level of disclosures, hypotheses under this study are formed accordingly for both financial and non-financial risk.

Hypothesis1 (a): A positive relationship between company size and the total number of risk disclosures potentially exists.

Hypothesis1 (b): A positive relationship between company size and the total number of financial disclosures potentially exists.

Hypothesis1 (c): A positive relationship between company size and the total number of non-financial disclosures potentially exists.

Hypotheses 2 – The effect of company's risk level on risk reporting *(risk level measured by Beta and Gearing ratio)*

This hypothesis is formed based on some rationales underlying the relationship between company's risk level and risk reporting level. The first explanation may relate to the 'Agency Theory'. Companies with higher risk level tend to disclose more risk information in order to deliver the expectation of their shareholders, as well as other stakeholders, who want to monitor the company's risk management. The second theory involves the effect of risk disclosures on perceived risk level of the company, i.e., when the company discloses more about their risk, the market will see clearer picture of risk. This can relieve the market's concern about the company's risk, and the market

may assign lower level of risk to the company than before (ICEAW, 1999). From both explanations in this paragraph, we can then expect a positive relationship between company's risk disclosures and risk level (Linsley and Shrives, 2006).

On contrary, it could also be argued that risky companies may not like to provide much detail about their risk, because it will make their riskiness even more noticeable. This incident is contradictory to the positive relationship identified in previous paragraph, and thus, one could propose the negative relationship between risk level and risk disclosures of the company as well.

As there are two competing theory, more researches based on real data were additionally explored. Some of these studies were reviewed and summarized by Linsley and Shrives (2006), i.e., the studies performed by Ahmed and Courtis (1999), which use 'leverage' as a measurement of risk, identified no relationship between riskiness and risk disclosures level. The study of Hossain et al. (1995) supports the same result, as well as the study of Linsley and Shrives themselves in 2006. However, they noted a study of Malone et al. (1993), in which positive association was identified.

After discussing various explanations and reviewing available studies regarding this relationship, hypotheses rather be formed based on evidence from real data. Thus, the hypotheses in can be listed as;

Hypothesis2 (a): Relationship between the level of risk within a company and the total number of risk disclosures is not potential.

Hypothesis2 (b): Relationship between the level of risk within a company and the total number of financial risk disclosures is not potential.

Hypothesis2 (c): Relationship between the level of risk within a company and the total number of non-financial risk disclosures is not potential.

Hypotheses 3: Level of risk disclosures comparing between 'financial' and 'non-financial' companies

This set of hypotheses examines difference in level of risk disclosures between 'financial' and 'non-financial' organizations. To form the hypotheses, it has to be noted that currently there is not much literature that studied the effect of industry on risk reporting, especially the comparison of risk disclosures between 'financial' and 'non-financial' firms. Previous study that directly investigates this issue may not be available.

Financial firms in the scope of this dissertation are institutions that engage mainly in providing financial services for its clients or members, with a significant task of being financial intermediaries. In general, financial institutions include 1) Deposit-taking institutions that receive and manage deposits and provide loans such as banks, building societies, credit unions, trust companies, and mortgage loan companies 2) Insurance companies and pension funds and 3) Brokers, underwriters and investment funds (Siklos, 2001). By this definition, twelve companies from our samples can constitute a group of financial firms (see the list of selected companies in Appendix 1).

The hypotheses emerged from the fact that financial firms, especially banking corporation, are widely regarded as the trailblazers of risk management concept and techniques. Therefore, they tend to disclose more risk information and provide detail for wider ranges of risks (Linsley and Shrives, 2006).

To further support this hypothesis from the view of 'legitimacy theory', financial institutions are normally perceived as an indication industry of the country's economy (MacDonald, 1998). Massive attention is always directed toward their operations. Being under general public monitoring, legitimacy theory suggests that firms are required to deliver society's expectations in order to promote legitimacy of entity's existence (Tilt, 2001). The more interest received from society, the higher need for the firms to satisfy public as a whole. Relating the theory to the study here, effective risk management strategies are also expected by the society, as it could helps the firm to maximize benefit

to stakeholders. Therefore, there is a need for the firms to publicize their risks and risk management practices in order to show compliance with society's expectation. In the case of financial institutions, there would logically be higher needs for risk disclosures. Here comes the first hypothesis of this set.

Hypothesis3 (a): Total number of risk disclosures will be significantly higher in the report of 'financial' firms than 'non-financial' firms.

After the first hypothesis, characteristic of risk disclosures made by financial firms will be further investigated. In the context of the second hypothesis, the focus is on comparing level of disclosures between 'monetary' and 'non-monetary' disclosures.

Looking at nature of risks, financial firms naturally possess higher proportion of financial risks than companies in other industries (Kuritzkes et. al., 2002), basically because their operations relate directly to financial transactions. Various kinds of financial risks could arise along their normal course of business, including credit risks, liquidity risks, and market risks from fluctuation in interest rate or currency exchange rate. Since they are quantitative in nature, these financial risks are readily measurable by arithmetic scales that were invented specially for risk quantification, such as Value at Risk (VaR), Expected Shortfalls, etc. Exposure of these risks, therefore, should be included as part of corporate risk disclosures and be quantified appropriately in monetary term. Building on this assumption, the second hypothesis of this set can be defined as;

Hypothesis3 (b): Total number of 'financial' risk disclosures will be significantly higher in the report of 'financial' firms than 'non-financial' firms.

To complete the examination of risk disclosures in financial firms, level of non-financial risk disclosures shall also be included. Based on similar background as hypothesis 2(b), financial firms often engaged in the complex transactions that generate risk more extensively. These risks extend the effect to wider group of stakeholders, and thus the stakeholders would expect higher level of

explanation about risk from financial companies. Therefore, the assumption on level of non-financial risk disclosures shall be built in the same trend.

Hypothesis3 (c): Total number of 'non-financial' risk disclosures will be significantly higher in the report of 'financial' firms than 'non-financial' firms.

Hypotheses 4-6 – Characteristic of risk disclosures of selected companies as a whole, regardless of company's characteristic

The following sets of hypothesis will investigate risk disclosures in the quality aspect. According to Beretta and Bozzolan (2004), quality of disclosure depends on both quantity of information disclosed and the richness of the information. The richness can be defined as a degree to which information can contribute to risk assessment process of outside investors.

To determine the level of information richness, Beretta and Bozzolan (2004) proposed four complementary dimensions to be considered; 1) the content of information 2) the type of measurement used to quantify expected impacts 3) the managerial approach to risk management and 4) the economic sign of expected impacts.

Firstly in this study, the content of information is considered by categorization of risks proposed in previous section. The type of measurement used in risk quantification is incorporated into the research by considering 'monetary' versus 'non-monetary' attribute of the disclosures (hypothesis 4). The managerial approach to management of risks is examined through another dimension of risk reporting, i.e., the outlook orientation, which includes time orientation that was examined in hypothesis 5. The economic sign of expected impacts is also considered in this study by investigating relative level of disclosures between good and bad risks (hypothesis 6).

Hypothesis 4: Monetary versus Non-monetary risk disclosures

This attribute related to quantification of risk, i.e., monetary risk is quantified in terms of money. Quantification of risk, whenever possible, contributes significantly to improving quality of risk disclosures as it enables readers to reliably estimate magnitude of the risk (Beretta and Bozzolan, 2004). However, measuring risk can be a very challenging task in real practice. There could occur various problems such as unavailability of historical data, limitation in risk measurement technique (Dowd, 1998), especially in quantifying risks that are non-financial, i.e., operational risk. In addition, management judgment must be applied extensively during risk quantification process, e.g., estimation of likelihood or severity of bad events.

An interesting rationale on risk quantification was proposed by Kadous, Koonce and Towry (2005). Risk quantification is expected to add persuasiveness to the report as it provide clearer picture of expected outcome from risks. But at the same time, risk quantification can be very subjective, input data are usually dependent upon judgment of preparer. Therefore, sometimes readers rather perceive the quantified risk, or monetary risk, to be biased information, and may not realize much of its value anymore. This fact together with various limitations in risk measurement suggested formation of the hypotheses 4 as follow.

Hypothesis 4: There will be significantly higher number of non-monetary risk disclosures than monetary risk disclosures.

Hypothesis 5: Past risk versus Future risk disclosures

To judge the value of study on this hypothesis, Linsley and Shrives (2005) presented that the provision of forward-looking risk information is especially useful to investors. The same result is also insisted by Dietrich et al. (2001), inserting that it also leads to improved market efficiency. The more financial reports look forward, the greater are their value to investors (Francis & Schipper, 1999).

On the side of research regarding time dimension of risk reporting, Beattie et al. (2004) performed a research based on annual reports of 27 UK firms from three industry sectors. It reveals that only 6.6% of total text units were classified as forward-looking information, and even worse, only 2.4% of total text units are forward-looking risk/opportunity information.

Another valuable study was produced by Beretta and Bozzolan (2004). They analyzed MD&A section in the annual report of 85 companies who are listed on the Italian Stock Exchange and found that those firms rather concentrate their disclosure on past and present risk, not future risks. And although future risks were reported, directors are reluctant to identify expected magnitude of outcome, i.e., positive or negative. This incident can be explained by two major obstacles in risk disclosures (Linsley and Shrives, 2005). First, directors are reluctant to publish risk information that could be commercially sensitive, and second, they are also reluctant to give out forward-looking risk information without safe harbor protection. Limitation on future risk disclosures were also confirmed by the studies of Kajuter (2001) and Woods and Reber (2003), on their survey on German and UK firms. Beattie et al. (2004), Beretta and Bozzolan (2004),

Linsley and Shrives (2006) has mentioned the work of Ryan (1997) that discussed the reasons why forward-looking information required by the FRR no. 48 is considered radical. The two reasons proposed can also be applied in general to future risk reporting here. The first reason could be that reporting of future risk does not go along with the main purpose of financial statement presentation. The company's account is expected to present historical information regarding operation result of the company. Second, announcement of future information can be risky for directors of the companies, because it could lift up people's expectation. And if the actual result turns out under expectation, directors could be blamed. The study of Beretta and Bozzolan (2004) reported that directors usually try to explain the cause of those negative outcomes by external, uncontrollable event to protect themselves. Deduced from explanation above, Hypothesis 5 could be formed as;

Hypothesis 5: There will be significantly higher number of past risk disclosures than future risk disclosures.

Hypothesis 6: Good risk versus Bad risk disclosures

This hypothesis is formed following the fact that the annual report could be used as a tool for image management of the company. And as one would expect, ordinary company tends to disclose good news rather than bad news that can harm reputation of the companies (Skinner, 1994). However, we could find an argument in the case where directors choose to report bad news.

According to attribution theory, self-interest directors have an incentive to describe bad news in a positive way to protect themselves from being blamed. Those directors could refer external and uncontrollable events as the cause of bad result (Beretta and Bozzolan, 2004).

Therefore, it is still controversial about the proportion of positive and negative news that companies disclose. Accordingly, we form hypothesis 6 as;

Hypothesis 6: There will be no significant difference in the number of good risk disclosures and bad risk disclosures.

CHAPTER 5

Data and Methodology

5. Data and Methodology

After hypotheses have been defined, methodology will be explained in the following section regarding selection of data source, selection of sample, data collection, as well as statistical tools to be applied in data analysis.

5.1 Data

5.1.1 Selection of data source

To study about corporate risk disclosures, annual reports can be deemed as one of the most reliable sources of information. The report is normally published and distributed to large group of audiences, and has been used by various stakeholders as the only source of credible information (Deegan and Rankin, 1996). Shareholders and other stakeholders usually prefer the listed firms to present information regarding expected future performance and the continuity of business activities that generate company's value. In this sense, the narrative component of financial communication is an important mean not only for explaining and proving the quantified data in financial statements, but also for providing insights in value-creation activities of the company (Beretta and Bozzolan, 2004). By applying content analysis on annual reports, ideas about risk and its relationship to corporate strategy can be explored (Linsley and Shrives, 2006). Additional justification for the use of annual report can be extracted from literatures in social disclosures field. Except from examining annual report, it is almost impossible to gather all corporate communications on social (risk) issues during a prolonged period of study, and hence, researcher cannot be ensured about completeness of non-annual report data, as well as its consistency (Gray et al., 1995). From these rationales, the analysis of risk disclosures of the selected companies will be done based on information published in total sections of the annual report, covering the notes to the financial statements.

Annual reports of selected companies were downloaded directly from official website of each company. For relevancy in timing of the result, the period of study is defined to be the financial year end that is closest to the 31st December 2009.

5.1.2 Selection of samples

This study will be undertaken based on the sample size of 30 companies, which is the maximum number of reports that can be analyzed reliably given the limitation in time and resources for this study. It is ensured that this sample size is justified for statistical tools that will be applied to measure difference between group, i.e., one-way ANOVA and Wilcoxon signed ranks test (Wilson, Voorhis and Morgan, 2007). Discussion regarding sample size sufficiency can be found in the following sections.

The samples were selected from the pool of Thai companies listed in the Stock Exchange of Thailand (SET) as of 7th July 2010. The list of all companies listed in the SET is obtained from the official website of SET (www.set.or.th)[1]. These companies usually produce a standard annual report every financial year, which is also available in English. The method of sampling will be a 'random' sampling to fulfill variety in size, industry and level of risks, which are needed in testing of the hypotheses previously introduced. The list of all selected companies as well as its detail can be found in Appendix 1 and the annual reports of all selected companies are provided in the electronic appendix.

As samples defined, limitations regarding this should be noted. First is a lack of cross sectionality of period under study as only one period of annual reports is examined and analyzed. As suggested by Russell & Joselito (1998), the selection of all samples from listed companies could deter variety of the result. Nevertheless, from investment perspective, reporting behavior of listed companies are generally a focus of attention to international investors and other stakeholders. In

addition, limited selection of listed companies will better smooth up interpretation of result, as all units are comparable.

5.2 Methodology

After data collection process is done, the data will be inputted into selected statistical tests in order to interpret the quality of risk disclosures into explicit term. Methodology in each step will be explained in the following sections.

5.2.1 Data collection: Content Analysis

a) Justification of content analysis

In response to research questions set forth, there is a need to examine information disclosed in the annual reports of the selected companies, then, make the interpretation to identify pattern of disclosures in an explicit terms. In doing so, 'content analysis' will be performed on the selected annual reports. Content analysis

is, in a formal way, *"the analysis of the manifest and latent content of a body of communicated material through classification, tabulation, and evaluation of its key symbols and themes in order to ascertain its meaning and probable effect."* It is also a research methodology that enables replicable and valid inferences from data based on specific context in each case (Krippendorff, 1980).

In practical term, Weber (1990) provided description of content analysis as *"a method of codifying the text of a piece of writing into various groups or categories depending on selected criteria."* This version of definition actually matches the procedures that were planned to be performed in this study. Under content analysis, the researcher will be required to read the selected annual reports to identify sentences that can inform readers about risk or risk-management

information. Then, classify those sentences into categories. From literature reviews in previous section, content analysis has been utilized extensively in the areas of risk reporting.

To further confirm applicability of the method, Holsti (1969) stated three conditions under which content analysis can be applied effectively. First, when there is a problem regarding data accessibility, including the case where documentary evidence is limited, or there is a restriction in time or space that prevent the researcher to access the subjects of investigations directly. This condition is applicable to the case here, as it may not be possible to access all companies in Thailand to directly investigate their risk disclosures.

Next, the second condition stated that content analysis is suitable when a focal point of investigation relates to the subject's language. In this study, the language that the companies use to report risk is the core piece of information that will enable us to infer their attitude toward risk disclosures.

Third, content analysis is suitable for the case where there are large quantities of material to be analyzed; the method will enable systematic coding and classification of data. Under this circumstance, the study involves examining voluminous quantity of information published in the annual reports of 30 selected companies. Then, it is clear that the study here has met all the three criteria set out above, and therefore, content analysis is justified as an applicable method here.

b) Limitation of content analysis

Before implementation, a methodological issue of this approach shall be noted. The most important weakness of content analysis lies in its consistency (or reliability) of the content categorization. Weber (1990) contended that this problem is normally a result of ambiguity of word meanings or category definition. Krippendorff (1980) has defined three types of reliability to be achieved in content analysis; 1) stability 2) reproducibility and 3) accuracy.

Stability is achieved when the results of coding or categorization remain unchanged as the process repeated over a period of time. Weber (1990) suggested one possible way to improve stability, which is to codify the same content more than once by the same coder. This solution will be applied in our study, i.e., all selected annual reports will be analyzed twice by the researcher.

Secondly, moving on to reproducibility, it concerns whether a different investigation would obtain the same results. This could be ascertained by 'inter-rater reliability', i.e., assigning more than one coder to codify the content. Unfortunately, this procedure may not be applied to the study here, and it should be noted as one of the limitation.

Lastly, Accuracy of content analysis presents the extent in which the coding and classification of the content complies with a standard or norm that already exists. Currently, there may be no established standard or norm in risk disclosures area. However, our coding and classification scheme will be based on literatures review and guidance issued from official organizations, which should be considered as an accurate source of information.

Apart from reliability, validity is another main issue in using content analysis, which involves whether a category or variable corresponds implicit concept that it represents, i.e., the degree to which a variable is measuring what it is intended to determine (Holsti, 1969). Validity is achieved when other data, coding procedures, or classification scheme generate similar results (Weber, 1990). Careful design of categories can also augment validity (Holsti, 1969). In this study, risk categorization was designed referring to previous studies in this area. Before actual implementation, pretest of risk categorization was also performed on a subset of the sample, in order to obtain understanding on textual disclosures. By doing this, some risk types in the coding scheme were revised and some were also added. Finally, the enhanced version of risk categorization was applied to the full sample.

To further maximize effectiveness of content analysis, Milne and Adler (1999) discussed about 'learning cycle' of the coders. Average learning cycle for less-experienced coders is estimated at around 20 reports, before more sophisticated sub-category analysis could be carried out reliably. In

this study, it is achieved by double analyzing 30 selected reports. This could build up a reasonably qualified output for further interpretation.

c) Implementation of content analysis

Following the guidance proposed by Weber (1990), content analysis shall be implemented by defining 'Unit of analysis' and 'Codification scheme first. Then, risk disclosures made in the annual reports will be counted according the defined unit, and categorized into relevant group based on the codification scheme. 'Number of sentences' was chosen as a unit of analysis here. Therefore, the output from content analysis will be presented as number of sentences disclosed in each risk category. Number of sentences will be inputted into relevant statistical model to make further interpretation according to hypotheses set out. 'SPSS' statistical package will be employed to execute this empirical task.

d) Unit of analysis

To analyze risk disclosure content, several units of analysis could be applied, for example, words, sentences, paragraphs or pages. By reviewing previous studies, it is found that 'sentence' is the most popular coding unit. In the study of risk reporting, it is important that each message was extracted from disclosure content, regardless of writing and presentation style. Interpretation of the whole sentences is the best mean to grasp meaning of each disclosure; this task is unlikely to be achieved only by consideration of individual word. The use of words as a measurement can also be problematic when dealing with different style of writing, i.e., concise and verbose style (Hackston and Milne, 1996). Considering the bigger measurement unit such as number of pages, inconsistency can easily occur from differences in formatting such as font size, margins, graphics, etc.

From all discussions, number of sentences seems to be counted more accurately than other measurements (Hackston and Milne, 1996). Consequently, 'sentences' is chosen as the unit of analysis in this study.

e) Codification scheme

In previous section, 'risk' disclosures' were defined as sentences that can inform users about threat or opportunity that the company may face. In this part, codification scheme of risk must be designed in order to implement content analysis.

Risk categorization

After defining risk and risk disclosures, the study further proceed to risk categorization. The classification of risk will enable interpretation of risk disclosure content in a more systematic manner. In this study, risk categorization model that was published in the ICAEW framework of Financial reporting of risk (1998) was adopted. The model was developed by a professional accountancy firms at that time, and it has been applied in several researches in this area, e.g., Kajuter (2001) and Linsley and Shrives (2005, 2005, 2006).

Under this model, risks were classified into six categories, which are financial risks, operations risks, empowerment risks, information processing and technology risks, integrity risks and strategies risks. Types of risks that fall within each category are summarized in Appendix 2.

The following definition of risk in each category was reviewed from available literatures in order to assist codification process. Monetary disclosures are risk information that risks impact are quantified in monetary terms, either directly or indirectly, enabling the reader to estimate monetary impact of the risks in past or future event.

Financial risks, as defined by Jorion (1997), include *"risks that have an immediate effect on assets and liabilities in monetary term."* On contrary, non-financial risks do not have such effect of a

monetary character. Consider it under the framework of ICAEW (1997), financial risks commonly include market risk (price risk), credit risk and liquidity risk.

In detail, market risks are risks underlying asset price movement in the markets, while credit risk represents the risk that the contractual party may not be able to settle payment obligations. Liquidity risk, on contrary, refers to the risk that a company itself may not be able to fulfill payment commitments it has made.

Last but not least, operational risks are risk of losses that could occur through inadequate systems, administrative failings, defective controls or human error (Jorion, 1997).

Apart from the categorization defined, characteristic dimensions of risk disclosures were further integrated into risk categorization model. The result of integration is presented in figure 4.1. Each category of risk will also be coded following these criteria:

(1) Whether the sentence informs reader about monetary or non-monetary risk information

(2) Whether the sentence informs readers about good news, bad news or neutral news; and

(3) Whether the sentence informs readers about future or the past risk information.

If a sentence can be categorized into more than one possible classification, it will be classified into the category that best represent risk message of that sentence (Linsley and Shrives, 2005). The result of risk categorization matrix is presented in figure 5.1.

Figure 5.1: Risk categorization matrix

Type of risks	Financial risks	Non-financial risks						Total
		Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	
Monetary/Good news/Future								
Monetary/Bad news/Future								
Monetary/Neutral/Future								
Non-monetary/Good news/Future								
Non-monetary/Bad news/Future								
Non-monetary/Neutral/Future								
Monetary/Good news/Past								
Monetary/Bad news/Past								
Monetary/Neutral/Past								
Non-monetary/Good news/Past								
Non-monetary/Bad news/Past								
Non-monetary/Neutral/Past								
Subtotal								
Non-monetary/neutral/non-time specific statements of risk management policy								
Total								

5.2.2 Data Analysis: Empirical methodology

After content in the annual reports has been codified, it will be further inputted to statistical tests that will be discussed in this section. Different type of statistical tests will be applied to each set of hypotheses, based on objective of testing. Nonetheless, all selected tests will be run by the same software, SPSS 16.0 for Windows.

Hypotheses 1 to 2: The effect of company's size and leve l of risk on risk disclosures volume

For hypotheses 1 and 2, the effect of company's size and level of risk on reporting volume will be tested by a parametric test, namely 'one-way ANOVA' test for differences between groups. Companies will be divided into different groups according to their size and risk level, then, test statistic value will be calculated to see whether there is a significant difference in volume of risk disclosures across groups or not. Our confidence level is set at 95%, as generally applied in academic research in this field.

In applying ANOVA, 'Homogeneity of variance' is assumed for the set of input data, i.e., variances of all groups are expected to be equal. Thus, before executing the test, preliminary analysis of data is performed by calculating 'Levene statistic' value at significance level of 95%. The result from this test will tell whether the assumption is held or not, if not, ANOVA can still be applied, however, the result must be taken with caution.

In terms of sample size, Wilson, Voorhis and Morgan. (2007) suggested optimal number of samples for measuring difference between groups to be 30 per cell, which will lead to around 80% prediction power of the model. If not available, sample size is allowed to be reduced to the minimal of 7 per cell, given at least 3 cells. By this amount, the result from ANOVA will still be meaningful, yet, prediction power will decrease accordingly.

Hypotheses 3 : The effect of industry on risk reporting

Under this set of hypotheses, difference in level of risk reporting between two groups (Placeholder1) will be tested, which are financial and non-financial firms. In this case, a non-parametric test called 'Wilcoxon signed ranks test' will be utilized to compare the difference between two groups. This test is also applied in the previous study of Linsley and Shrives (2006), at the same significance level of 95%. For the non-parametric test, assumption of variance homogeneity is not relevant anymore (Cooper and Schindler, 2008). Consideration of samples size under this test is based on the similar rule as ANOVA test above, because Wilcoxon signed ranks test is also one of the test that measure difference between groups.

Hypotheses 4-6: Characteristics of risk disclosures in various dimensions

This set of hypotheses test relative level of disclosures between; monetary and non-monetary risk, past and future risk as well as good and bad risk disclosures. Wilcoxon signed ranks test can, again, facilitate the test for the difference between two groups of companies, for example, companies who disclose more good risks and companies who disclose more bad risks.

Variables measurement and grouping

Under the first hypotheses regarding size effect, companies are divided into three groups according to their size, which is measured by 'Market capitalization' as of 7th July 2010. Market value data is obtained from the official website of stock exchange of Thailand (www.set.or.th). From initial observation of distribution in data set, grouping of company size came up as presented in figure 5.2.

Figure 5.2: Grouping by company size

Market Capitalization (million Baht)	Group name	Reference	No. of reports
> 100,000	Large	1	9
30,000-100,000	Medium	2	8
< 30,000	Small	3	13
			30

For hypotheses 2, the grouping is defined based company's risk level. Based on available data, two measurement scales were adopted to identify size of risk, i.e., Price to Book value ratio (P/B ratio) and Gearing ratio. These two measurements were applied before in studies in this field such as Linsley and Shrives (2006). There may not be a theoretical background for the selection of these two measurements because the objective of our study is to test for potential linkage between level of risk and risk disclosures. The grouping for risk level can be exhibited in figure 5.3 and 5.4.

Figure 5.3: Grouping by risk level – P/B ratio

Price/Book Value ratio	Risk level	Reference	No. of reports
0.0-1.4	Low	1	13
1.4-2.0	Moderate	2	10
> 2.0	High	3	7
			30

Figure 5.4: Grouping by risk level – Debt ratio

Debt ratio	Risk level	Reference	No. of reports
0.0-0.7	Low	1	11
0.7-2.0	Moderate	2	11
> 2.0	High	3	8
			30

CHAPTER 6

Empirical Results

6.1 Overall Analysis

This section will discuss the results from content analysis of thirty selected annual reports of listed companies in Thailand. The discussion will be based on summary of results in figure 6.1 (with raw statistical output from SPSS software provided in Appendix 3). In figure 6.1, each 'column' represents the category of risks, and each 'row' represents characteristic of risk disclosures as defined in the codification scheme. This cross-tabulated figure exhibits 'number of risk disclosure sentences' in each category, for instance, from the first row, totally 8 sentences of 'Strategic Risks' disclosures under 'Monetary/Good news/Future' category, were identified from the sample of annual reports.

To begin the analysis, total 7,469 sentences of risk disclosures were identified from the selected annual reports. They can be classified into categories as presented in figure 6.1. Average number of risk disclosures per report is 249 sentences in the sample group, noted a large gap between maximum and minimum value, i.e., 598 and 28 sentences. The standard deviation is 161.52 sentences. From content analysis, risk discussion can be found throughout every section of the selected annual reports, ranging from Management Discussion and Analysis, to Notes of financial statements. There is no specific pattern of disclosure in any particular section.

Figure 6.1: Summary of risk disclosure sentences identified from the selected annual reports

Type of risks	Ref	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Total	% of total
Monetary/Good news/Future	A	0	0	0	0	0	8	8	**0%**
Monetary/Bad news/Future	B	0	3	0	0	0	4	7	**0%**
Monetary/Neutral/Future	C	4	0	0	0	0	5	9	**0%**
Non-monetary/Good news/Future	D	0	22	0	3	0	288	313	**4%**
Non-monetary/Bad news/Future	E	1	75	0	0	0	141	217	**3%**
Non-monetary/Neutral/Future	F	10	6	0	0	0	74	90	**1%**
Monetary/Good news/Past	G	22	7	0	0	0	51	80	**1%**
Monetary/Bad news/Past	H	201	16	0	5	6	33	261	**3%**
Monetary/Neutral/Past	I	1230	71	0	0	0	95	1396	**19%**
Non-monetary/Good news/Past	J	32	39	0	9	19	299	398	**5%**
Non-monetary/Bad news/Past	K	13	72	0	0	0	331	416	**6%**
Non-monetary/Neutral/Past	L	173	162	0	0	17	272	624	**8%**
Subtotal		**1686**	**473**	**0**	**17**	**42**	**1601**	**3819**	**51%**
Non-monetary/neutral/non-time specific statements of risk management policy	M	1443	1213	61	175	670	88	3650	49%
Total		**3129**	**1686**	**61**	**192**	**712**	**1689**	**7469**	
% of total		**42%**	**23%**	**1%**	**3%**	**10%**	**23%**		

Considering by risk type – 'Financial risk' dominates

Analysis of the result is started by ranking number of disclosures by risk type as presented in figure 6.2. Risk type that dominates overall disclosures is financial risks, with total disclosures of 3,129 sentences or 42% of total disclosures identified. It was followed by reporting of strategic risks (1,689 sentences or 23%) and almost equally, operations risk (1,686 sentences or 23%). The domination of reporting by financial risks is in line the study of Linsley and Shrives (2005) on risk disclosures of UK public companies.

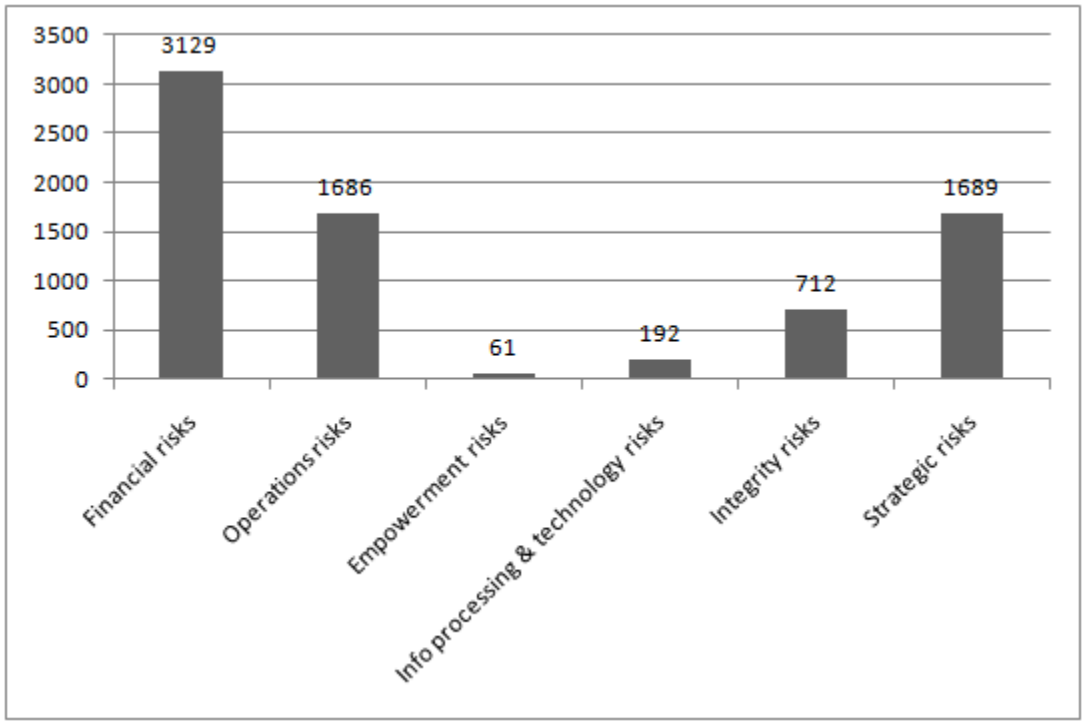
In deeper detail, most of disclosures made under financial risk category are 'Non-monetary/neutral/non-time specific statements of risk management policy' (1,443 sentences or 46% of total financial risk disclosures). These contents are generally definition of risks that assist readers to understand certain type of financial risk, for example, *"Credit risk refers to the risk stemming from the counterparty's failure to comply with the conditions and covenants in the agreement agreed upon resulting in non-repayment of the debt which might incur losses to the Bank" (Krungthai Bank, 2009, p.104).* The contents also include neutral explanation on policy that the company applied to mitigate certain risk, for *instance "The company minimizes potential losses which may arise from customer defaults by adjusting credit risk management criteria and processes" (Kasikorn Bank Group, 2009, p.48).* Apart from that, financial risk disclosures also consisted much of 'Monetary/Neutral/Past' type, i.e., 1,230 sentences or around 40% of total financial risk disclosures. This includes presentation of several historical performance such as gain/loss from previous year derivatives management.

Analysis of financial risk disclosures in detail could imply us the reason why financial risk dominate overall disclosures. Unlike other types of risks, financial risks are normally defined in technical terms, which is complicate for average people to comprehend without proper explanation. Thus, basic definition must be provided at the first place. This creates the need for non-monetary description of financial risks. In addition, risk management strategy to mitigate financial risks could be inserted more reliably, because the methods seem to be more solid than mitigation of other risk type. For example, exchange rate risk can be managed by explicit forward contract or several kinds of

hedging. Detail of these activities can be disclosed in a more concrete way than risk management activities of other risk type. This further bombarded the number of neutral/non-time specific disclosures on financial risks.

For the monetary/neutral/past type, these disclosures often include ranges of quantitative evidence such as value of exposures, and unrealized gain/loss on hedging position, etc. These monetary details further proliferated number of disclosures on financial risks.

Figure 6.2: Ranking of number of sentences by risk type



Following financial risks, the number of disclosures on strategic risks came in the second. This mostly includes discussion about external factors such as economy, industry and competition, etc. Popularity of strategic risks disclosures could be reasonably explained by 'proprietary cost theory'. Under the theory, managements may attempt to avoid discussion of internal risks, if they believe that it could lead to unnecessary 'proprietary costs', most importantly the cost from revealing

trade secret to competitors (Verrecchia, 1990). Thus, by its exogenous nature, strategic risks tend to be disclosed more prevalently.

Another interesting feature is that disclosures of strategic risks often followed by operational risk disclosures, i.e., companies mostly report description of risks that they face, then, the risk management strategy that management applied to effectively mitigate risks (Linsley and Shrives, 2005). This could serve as an explanation for comparable proportion of operational risk and strategic risk disclosures. To further analyze this incident, 'Attribution theory' suggests that a sound management normally attributes bad things to external factors beyond their control (strategic risk disclosure) and attributes good things to their own superior performance in managing risks (operations risk disclosure) (Abrahamson and Park, 1994).

Considering tone and time dimension – 'Non-monetary/neutral/non-time specific' disclosures dominate

Moving on from analysis on type of risks, let us consider the tone and time dimension of risk reporting. Dominating types of disclosures (49% of total) is shown to be 'Non-monetary/neutral/non-time specific statements of risk management policy'. Under this category, disclosures can be further ranked by risk type as financial risk (1,367 sentences), operational risk (1,213 sentences) and integrity risk (670 sentences) respectively. This result is also in the same trend with previous study of Linsley and Shrives (2006) on UK listed companies. They indicated 'Non-monetary/neutral/non-time specific statements of risk management policy' to be majority of overall disclosures. Nonetheless, they only ranked the disclosures on financial risks and integrity risks, not operational risks.

Examples of financial risk disclosures under this category were given in the discussion above (e.g., definition of credit risk). For operations risks and integrity risks, disclosure styles are also similar to financial one. However, it is noted that disclosures on integrity risks are less specific and more of high level policies than disclosures on operations risks. An example under integrity risks category could be "The role of risk management committee is to drive the risk management effort of

Thaioil Group to achieve greater efficiency in all activities and to support the embedment of risk management into the organizational culture to realize set goals (Thaioil Group, 2009, p.88)." And for operations risks, "With the cyclical demand from automotive manufacturer where new model will be launched every 3-5 years, the Company is facing the risk of uncertainty income from jig products (Aapico Hitech, 2009, p.32)."

All examples clearly present unbiased tone of messages regarding risk. They are just general information about what could happen, but they cannot inform the readers of any potentiality for those good or bad risks. This result shares similarity with the result from another study of UK public companies reporting by Linsley and Shrives (2005). They found that market often relayed with bland general policy statements regarding risk management function and internal controls. This can be noted as a prevailing characteristic of risk reporting made by the sample of Thai listed companies as well.

From overall analysis, some notable features of risk disclosures made by the samples can be concluded as follows. Firstly, financial risk disclosures seems to dominate overall risk reporting, with majority of disclosures being general description of financial risks, added by corresponding risk management policy to evidence directors' action in managing those risks. Secondly, when considering tone and time dimension of disclosures, blandness seems to be the trend for Thai annual reports. Almost half of total disclosures fall into 'Non-monetary/neutral/non-time specific statements of risk management policy' category. Both characteristics of risk reporting of Thai listed companies share similarity with what Linsley and Shrives (2006) noted for UK listed companies.

6.2 Hypotheses Testing

In this section, statistical test will be performed as set out in methodology section to validate each hypothesis. The result from testing in statistical term will be illustrated and discussed.

Hypotheses 1 – The effect of company's size on risk reporting

Statistical result from testing of this set of hypotheses can be exhibited in figure 6.3, and interpretation of the result for each hypothesis is given below.

Figure 6.3: ANOVA output from testing of hypotheses 1

Hypothesis no.	Levene Statistic	Group	*N*	Significant level of difference between groups			
				Overall difference	Large vs. Medium	Large vs. Small	Medium vs. Small
1(a)	.043	Large	9	.000	.340	.000	.003
1(b)	.000	Medium	8	.001	.457	.002	.057
1(c)	.553	Small	13	.000	.602	.000	.007

** SPSS output tables are available in Appendix 4 to 6.

Hypothesis1 (a): A positive relationship between *'company size'* and the *'total number of risk disclosures'* potentially exists.

The hypothesis was tested by one-way "ANOVA" test of difference between groups. First of all, preliminary analysis of data was performed by using 'Levene statistic' test to verify homogeneity assumption of variances between groups. At 95% confidence level, it was revealed that the assumption is violated with significance value of .043, which can be perceived as a mild violation only. Nevertheless, results from this test must be taken with caution.

ANOVA output for this hypothesis shows that there exists a significant difference between three groups in total numbers of risk disclosures. 'Post-hoc' test further uncovered that 'large' and 'medium' companies do not differ significantly from each other in terms of risks disclosures level, whereas 'small' companies differ significantly from both 'large' and 'medium' sized firms. Additional investigations were performed to test if this result could imply certain pattern of relationship between company size and level of risk disclosures. Initial investigation was done by comparing mean number of total risk disclosures in each group, i.e., 'large' firms 387 sentences, 'medium' firms 307 sentences and 'small' firms 118 sentences. Ranking of average value among

these three groups signals existence of positive association between company size and total number of disclosures, i.e., as company size grows up, greater numbers of risk disclosures can be expected.

Hypothesis1 (b): A positive relationship between 'company size' and the total number of *'financial risk disclosures'* potentially exists.

Beginning from Levene statistic test, again, the result from this test must be taken with caution as homogeneity of variances was not hold. Under this hypothesis, significant difference in number of financial risk disclosures was defined only between companies in 'large' and 'small' group. There was no significant difference identified for 'medium' sized companies. By further comparison of mean value, it also indicates that positive association possibly exists, i.e., financial risk disclosures averaged at 170, 120 and 27 sentences for large, medium and small firms group respectively.

Hypothesis1 (c): A positive relationship between *'company size'* and the total number of *'non-financial risk disclosures'* potentially exists.

Homogeneity of variances is conformed for this hypothesis. The result from ANOVA confirms that 'large' and 'medium' companies do not differ significantly from each other in terms of non-financial risk disclosures level, whereas 'small' companies differ significantly from both of them. This result is in the same direction as that of hypothesis 1 (a). Hence, similar implication can be drawn from average number of sentences of 217, 186 and 90 in each group respectively.

Despite of some variations in the result of each hypothesis testing in this set, in general all results signify similar implication that positive association potentially present between company size and total number of risk disclosures, number of financial risk disclosures and number of non-financial risk disclosures. By extending scope and sample size of the study, a more sophisticate statistical test

could reveal positive relationship between company size and level of non-financial risk disclosure, as previously discovered by Linsley and Shrives (2006) and Beretta and Bozzolan (2004) on the UK and Italian firms accordingly.

Hypotheses 2 – The effect of company's risk level on risk reporting *(risk level measured by Gearing ratio and Price to Book value ratio)*

Hypotheses2 (a): Relationship between the *'level of risk'* within a company and the *'total number of risk disclosures'* is not potential.

Hypotheses2 (b): Relationship between the *'level of risk'* within a company and the total number of *'financial risk'* disclosures is not potential.

Hypotheses2 (c): Relationship between the *'level of risk'* within a company and the total number of *'non-financial risk'* disclosures is not potential.

Figure 6.4a: ANOVA output from testing of hypotheses 2 – Debt ratio

Hypothesis no.	Levene Statistic	Group	*N*	Significant level of difference between groups			
				Overall difference	High vs. Moderate	High vs. Low	Medium vs. Low
2(a)	.441	High	8	.000	.171	.000	.001
2(b)	.042	Moderate	11	.000	.608	.000	.000
2(c)	.484	Low	11	.016	.133	.020	.555

Figure 6.4b: ANOVA output from testing of hypotheses 2 – P/B ratio

Hypothesis no.	Levene Statistic	Group	*N*	Significant level of difference between groups			
				Overall difference	High vs. Moderate	High vs. Low	Medium vs. Low
2(a)	.394	High	13	.190	.529	.653	.196
2(b)	.003	Moderate	10	.283	.577	.773	.298
2(c)	.561	Low	7	.280	.671	.669	.282

** SPSS output tables are available in Appendix 7 to 9.

In testing of hypotheses in this set, two indexes were used to represent risk level are 'Price to Book value ratio (P/B)' and 'Debt ratio'. ANOVA was run separately for each ratio. Under the first hypotheses 2(a), it turns out that significant difference between groups was found only across

companies with different debt ratio, not P/B ratio (at 95% confidence level). Across debt ratio groups, companies in 'low' ratio group differ significantly from both 'high' and 'moderate' ratio groups in terms of total risk disclosures, while the latter two groups do not differ significantly from each other. Considering average number of sentences in each group, companies with 'high' debt ratio possess the highest mean value, following by 'moderate' and 'low' group respectively (442, 223 and 135 sentences). This indicates that positive association between company's risk level and total number of risk disclosures may exist.

For the second hypothesis 2(b), ANOVA come up with the same result as the previous hypothesis, i.e., significant difference between groups was found only across companies with different debt ratio, not P/B ratio. Amongst the debt ratio groups, the difference was only identified between companies with 'low' debt ratio and the remaining two groups. Significant variation was not noted between the companies in 'high' and 'moderate' debt ratio groups. One more time, mean sentences of financial risk disclosures is outstandingly high for companies in 'high' group, i.e., 236 sentences comparing to 33 and 55 sentences in 'moderate' and 'low' group.

Lastly, the result from testing of hypothesis 2(c) also support the same trend as the previous two hypotheses, significant difference was identified across the groups of companies with different debt ratio. For this hypothesis, the only significant difference found is between the group of 'high' and 'low' debt ratio. The mean sentences also increase when debt ratio gets higher (206, 168 and 102 sentences for high, medium and low group respectively).

The result from all hypotheses in this set shows that there are significant differences in risk disclosures volume across companies with different level of risks (debt ratio). Ranking of mean number of sentences further implies the possibility that there potentially be significant relationship between level of company risk and level of risk disclosures, both financial, non-financial and overall risk disclosures. This result can be supported by a study of Malone et al. (1993), which is based in the US. On contrary, it is in contradict with what is found by Linsley and Shrives (2006) who found opposite type of relationship in the UK annual reports.

Hypotheses 3: Level of risk disclosures comparing between 'financial' and 'non-financial' companies

Figure 6.5: 'Wilcoxon signed-rank test' output from testing of hypotheses 3

Wilcoxon signed ranks test results		N	Mean rank	Sum of ranks
Total risk disclosures	Negative ranks	18	19.75	237.00
	Positive ranks	12	12.67	228.00
	Ties	-		
	Total	30		
Financial risk disclosures	Negative ranks	18	18.71	224.50
	Positive ranks	12	13.36	240.50
	Ties	-		
	Total	30		
Non-financial risk discloures	Negative ranks	18	17.79	213.50
	Positive ranks	12	13.97	251.50
	Ties	-		
	Total	30		

Test statistics	Asymp. Sig (2-tailed)
Total risk disclosures	.031
Financial risk disclosures	.104
Non-financial risk discloures	.249

* Positive ranks represent 'financial' firms and Negative ranks for 'non-financial' firms accordingly

** SPSS output tables are available in Appendix 10

Hypothesis3 (a): Total number of risk disclosures will be significantly greater in the report of *'financial'* firms than *'non-financial'* firms.

To test this set of hypotheses, 'Wilcoxon signed ranks test' (Mann-Whiney U) was utilized in identifying difference between two groups. The result shows mean rank of financial firms to be 19.75, while mean rank of non-financial firms is 12.67. This evidences higher number of total risk disclosures in financial companies than non-financial companies. Further, significant difference between groups was confirmed with significance value of .031. All these results strongly support assumption made in hypothesis 3(a). The rationale for this result may relate to 'nature of risks' that

financial firms have. By engaging with multitude number of financial transactions, significant risks of the firms would mostly be financial risks. As mentioned in the part of overall analysis, financial risks are types of risk that could bring about greater amount of disclosures. This could be a reasonable explanation for the result discovered here.

Therefore, an implication to be drawn from this finding could be similar to what indicates by domination of financial risk disclosures, that is, stakeholders of financial firms tend to receive sufficient level of risk information considering their nature of risks that require greater disclosures.

Hypotheses3 (b): Total number of 'financial' risk disclosures will be significantly greater in the report of *'financial'* firms than *'non-financial'* firms.

Similar test was run repeatedly to test hypothesis 3(b), the result also presents that financial companies make greater number of financial risk disclosures than non-financial companies as hypothesized. Nonetheless, significance value of .104 indicates that difference between groups is not significant at 95% confidence level. But from the value, it potentially make up a significant difference if we allow lower level of confidence at 90%, and may be extend sample size of the test.

Hypotheses3 (c): Total number of 'non-financial' risk disclosures will be significantly greater in the report of *'financial'* firms than *'non-financial'* firms.

The Wilcoxon signed rank test result exhibited that significant difference in level of non-financial risk disclosures does not exist between firms in financial and non-financial industry. At 95% level of confidence, significant value is shown at .249, which is quite far from expectation. Then, conclusion may be made that financial and non-financial do not differ materially in the level of non-financial risk disclosures.

Hypotheses 4-6 – Characteristic of risk disclosure of all sample companies, regardless of company's characteristic

Hypothesis 4: There will be significantly higher number of *'non-monetary'* risk disclosures than *'monetary'* risk disclosures.

Hypothesis 5: There will be significantly higher number of *'past'* risk disclosures than *'future'* risk disclosures.

Hypothesis 6: There will be no significant difference in the number of *'good'* risk disclosures and *'bad'* risk disclosures.

Figure 6.6 : Summary of test result for hypotheses 4-6

Wilcoxon signed ranks test results		**N**	**Mean rank**	**Sum of ranks**
Monetary - non-monetary	Negative ranks	-	-	-
	Positive ranks	30	15.50	465.00
	Ties	-		
	Total	30		
Past - future	Negative ranks	1	1.00	1.00
	Positive ranks	29	16.00	464.00
	Ties	-		
	Total	30		
Good - bad	Negative ranks	16	20.50	328.00
	Positive ranks	12	6.50	78.00
	Ties	-		
	Total	30		

Test statistics	**Asymp. Sig (2-tailed)**
Monetary - non-monetary	N/A*
Past - future	0.094
Good - bad	0.000

* Mann-Whitney test cannot be performed in empty group

** SPSS output tables are available in Appendix 11.

'Wilcoxon signed ranks test' also be applied in testing this set of hypotheses. The results are summarized in figure 6.6. Firstly, test result of hypothesis 4 shows the number of positive ranks to be 30 and negative ranks to be 0. This clearly exhibits that the number of non-monetary risk disclosures are higher than the number of monetary disclosures for all companies in the sample, as expected by hypothesis 4. This result is in the same trend as the study of Kajuter and Winkler (2003), Beretta and Bozzolan (2004), Linsley and Shrives (2006), and Mohobbot (2005) which were performed based on disclosures of German, Italian, UK and Japanese companies respectively.

For hypothesis 5, the result presented that the number of past risk disclosures exceeds the number of future risks disclosures in 29 out of 30 companies in the sample. Therefore, the only one company who disclose more of future cannot constitute another group for comparison, since we need minimal sample size of seven in each group. Although statistical test cannot be applied, we can see clearly that up to 29 companies out of 30 disclose history rather than forward-looking risk information. Furthermore, from that 29 companies, we counted up to 2,544 sentences that past risk disclosures exceed the future one, averagely 88 sentences per report. In other words, percentage of future risk disclosure is only around 16% of total risk disclosures. By synthesizing all these data, we believe that there is a reasonable ground to conclude that past risk disclosures are more prevalent. Assuming this, our finding can be summarized in the same tone with Linsley and Shrives (2006), who discovered the UK listed companies made significantly greater level of past risk disclosures than the future one. It is also supportable by similar result in the study of Kajuter and Winkler (2003), Lajili and Zeghal (2005) and Mohobbot (2005), which content analysis were applied on the annual reports of German, Canadian and Japanese firms.

For the last hypothesis number 6, test result indicates that the number of good risk disclosures is significantly higher than the number of bad risk disclosures for all the sample companies. Sixteen out of 30 companies in the sample disclosed higher number of good risk content than the bad risk one, this trend is noted with significant value of .000, and it is in accordance with the result previously found in the study of Linsley and Shrives (2006) based on the UK companies.

CHAPTER 7

Discussion and Conclusion

7.1 Discussion of results

This study was performed with an objective to learn more about risk disclosure practice in Thailand in various aspects, covering both developments of Thai disclosure standards, as well as the real practice of risk disclosures in the annual report of Thai public companies. The paper started with comparison of risk disclosure practices in several countries around the world, including Thailand itself, in order to understand current status of risk disclosure development in the country of study, and also to identify room for improvement by learning from practices in developed countries.

From the review, it is found that reporting standard development of Thailand is still in an initial stage although most reporting issues in attention are covered by Thai standards already. Comparing to international standards and the standards of developed countries in western zone, Thailandis still obviously in a follower position. The study of Russell and Joselito (1998) presented that up to 86% of disclosure requirement under the Thai standards are adopted from the international standard (IAS). This situation is more or less similar with other countries in Asian zone, such as Singapore, Philippines or Malaysia. As these countries are developing into a world-class position, they consequently have to follow the international trend. This indicates that future improvement in the Thai reporting regulation would potentially be dependent upon improvement of standards in the developed countries. This could be done with some modification to suit the adopted standards to local needs.

After the review of practices in several countries, characteristic of risk disclosures were then explored by empirical analysis of risk disclosures content in the annual reports of the sampled Thai listed companies. The sample consists of 30 annual reports for the account closing period nearest to 31 December 2009. Based on these data, statistical tools were applied to test for potential relationships between level of risk disclosures and company size, company risk level and company industry. The test is also conducted to find out dominating characteristic of risk disclosures made by the sample companies. The result from all parts will be discussed in this section.

From empirical studies, potential relationships between level of risk disclosures and two factors were implied. Firstly, it is found that company's size affects total number of risk disclosures, as well as number of financial risk and non-financial risk disclosures in particular. By ranking the mean number of sentences between groups, it is implied that relationship between company's size and level of overall risk disclosures may exist in a positive way. This positive association is also potential for financial and non-financial risk disclosures in particular. Overall testing result of hypotheses in this set is in the same trend with the study of Linsley and Shrives (2006) and Beretta and Bozzolan (2004), which were done for UK and Italian firms accordingly. It also complies with most researches in social disclosures field in several countries, as mentioned in the formation of hypotheses 1. The result from this hypothesis implies that risk disclosures are made logically according to firm size, i.e., bigger firm who engaged in higher impact activities tend to publish more risk information. This could imply that the annual reports, to a certain level, tend to provide appropriate level of information considering firm size.

Apart from size factor, the study also found a potential correlation between level of risk disclosures and level of company risk in one of two measures of risks, i.e., debt ratio, but not P/B ratio. The result identified significant difference in total volume of risk disclosures across three groups of companies who have different level of debt ratio. This significant difference is also noted specifically for the level of financial and non-financial risk disclosure. And again, by further investigation of mean ranking amongst all groups, level of disclosures seems to vary directly with level of company's risk. This trend is valid for overall risk disclosures, as well as financial risk and non-financial risk disclosures in particular. This finding is contradict with the most of the studies in the same topic, including the paper of Linsley & Shrives (2006), which found that companies with lower environmental risks disclose greater amount of risk information than those higher risk one. In that study, they stated an implication that stakeholders of the sample UK reports may not receive adequate risk information, especially from those companies with greater level of risk. Therefore, as the result here were shown in the contradict trend, it could assume an opposite implication here.

Stakeholders of the sample Thai companies tend to receive sufficient information of risk, according to risk level of the companies.

The third set of hypotheses then moved on to examine industry effect on level of risk disclosures. Due to variety of uncontrollable factors could involve in testing industry difference, scope of the testing here is limited to comparison of disclosure level between financial and non-financial firms. The result from Wilcoxon signed rank test came up as hypothesized, financial firms in sample group made significantly greater number of total risk disclosures than non-financial firms. However, this pattern does not hold true for disclosures of financial risk and non-financial risk in particular. One of the underlying reasons could be that financial firms are normally a large corporation, thus, its size could lead to higher level of risk disclosures, as reported by hypothesis 1.

Besides exploring various factors that could affect level of risk disclosures, testing was also done in order to see if there is any pattern of risk disclosures made by Thai public companies. First of all, it is found that all companies in the sample made at least some risk disclosures. Almost all selected reports contain a formal section of 'Risk Factors', where each company normally describes its major risks, as well as mitigation policies. Apart from that, risk disclosures spread throughout various sections of annual reports, ranging from MD&A, financial highlight and notes to financial statements, etc. One outstanding characteristic is that disclosures under category 'Non-monetary/neutral/non-time specific statements of risk management policy' seem to dominate overall risk disclosures. Its proportion is as high as 49% of total risk disclosures, counted for all risk types. This includes mostly definition of the risks and general statements of risk policy, which are made in unbiased tone. They cannot inform the readers of any probability of good or bad risks, and may not be the type of information required by the institutional investors (Solomon et. al., 2000). This could be noted as one area that improvement is needed, i.e., guidance could be issued to assist companies to disclose more specifically about opportunities and threat that they faced.

Another stylized pattern of risk disclosures of the Thai companies is that financial risk disclosure is the most popular among all types of risk disclosures. This is possibly because financial

risks are complex to understand, they usually related to technical terms and sometimes sophisticated calculation. They need more clarification than other types of risks, and it could be agreed that these explanations are beneficial to the readers.

This result is in the same trend with the study of Linsley and Shrives (2006) on the UK listed companies. Proliferation of financial risks disclosures is reasonably the result of disclosures that explain definition of financial risks, with description of risk management policy that was used to manage those risks. The remaining is much of historical monetary performance of financial risk management. Following financial risk are disclosures of 'strategic risk' and 'operational risk'. This can be explained by 'proprietary cost' and 'attribution theory', i.e., a sound management normally attributes bad things to external factors beyond their controls (strategic risk disclosures) and attributes good things to their own superior performance in managing risks (operation risk disclosures) (Abrahamson and Park, 1994).

Examining risk disclosure characteristic in a more detailed level, the paper compared total number of non-monetary risk disclosures with the monetary one. Results from Wilcoxon signed rank test revealed that numbers of non-monetary risk disclosures are significantly greater than the monetary one. This result is consistent with the studies of Beretta and Bozzolan (2004), Woods and Reber (2003), Beattie et al. (2004) and Linsley and Shrives (2006). However, noted that Total percentage of quantitative risk in this study is around 23%, comparing to 15.5% by Linsley and Shrives (2006) and 5.3% by Beretta and Bozzolan (2004). Quantification of risk contributes materially in risk assessment process of stakeholders. Relative proportion of monetary risk disclosures in Thai reports although higher than previous studies, it is still a lot lower than non-monetary disclosures. Nevertheless, we must note the limitation in quantification for some types of risks, i.e., most non-financial risk. The problem may not be rooted from director's willingness to disclose.

In another aspect, it is also noted that numbers of good risk disclosures exceeds bad risk disclosures in a significant level. The finding is in accordance with the several pieces of evidence, e.g., the paper of Kajuter and Winkler (2003), Lajili and Zeghal (2005) and Mohobbot (2005), where

content analysis were applied on the annual reports of German, Canadian and Japanese firms respectively. This result also supports the assumption that management frequently acts in benefit of themselves, and may not be willing to disclose bad news of the company since that may cause reputational costs, legal cost, or threaten relationships with trade partners (Skinner, 1994). This implies that readers of companies' report may not receive complete information about risk, i.e., the disclosures of downside risk could be missing.

Lastly, for the comparison of past and future risk disclosures, statistical tools cannot be applied due to inadequate sample size. However, alternative procedures were carried out by analyzing descriptive statistics of data. Empirical evidences were compiled to back up the conclusion that sample companies clearly made more past risk disclosures than the future one. This result implies the same message as Linsley and Shrives (2006) that management seems to be unwillingly provides forward-looking information, in order to save themselves in the case that future performance cannot be achieved.

7.2 Conclusion

After discussing all empirical evidences, several issues in risk disclosures of the sample Thai companies could be highlighted. From review of available literatures, it is perceivable that Thailand's reporting standards were developed following the mainstream international standards, as well as standards in the developed countries. Since Thailand is trying to gain its place in the world-stage competition, it is expected to harmonize its standards along with those influential nations of business world. Therefore, improvement on Thai standards is anticipated to be the adoption of the more updated standards from developed countries, i.e., with less lag year.

More specifically, empirical study on risk disclosures pointed out specific areas of risk reporting that enhancement is needed. The result has shown that Thai public companies seem to share

several issues on risk reporting with firms in western countries. This is supported by the same trend of test results on characteristics of risk disclosures.

To name few, current risk disclosures are mostly in neutral tone, not sufficiently specific to inform readers of the potentiality of good or bad risk that the companies face. To develop this aspect of risk disclosures, additional reporting standards could require more specific types of information from the companies. Some show cases of this are CICA's discussion for improvement in risk information (2002). Guidance on MD&A preparation was launched, and in its section 360, it is recommended that the company should disclose its major risks and detail relevant risk management strategy. This type of discussion paper was also issued by other accounting body such as ICAEW (1999, and 2002).

Yet, previous studies has revealed that this task may not be as simple due to the companies must report their risks to various stakeholder groups, who may have totally different risk attitudes and preferences (Hodder et al., 2001). An example case as presented by Linsley and Shrives (2006) could be implementation of the GAS 5 in Germany. Although the GAS 5 was accepted widely in terms of specificity in requirement, it still cannot yield complete disclosures of risk as expected (Kajuter (2001). Another example is the violation of the SEC no. 48 found by Roulstone (1999). These unsuccessful cases imply that it could be really demanding to completely resolve this issue.

Next, when consider type of risk, financial risk disclosures are the type of risk information that are disclosed most often, regardless of company's industry. On one hand, this may signify that non-financial disclosures are not provided adequately, because its proportion is relatively lower than the financial one. Nevertheless, with careful consideration, we can discover a reasonable ground of why financial risk disclosures are made in a greater level than other types. First, it could be because more descriptions are needed to clarify complex nature of financial risk. Further, risk mitigation policies of financial risks appears to be more concrete than other kinds of risk, thus, disclosures on financial risk management are made more prevalently. By this fact, the implication from surplus level

of financial risk disclosures than non-financial one rather be the two reasons, not an inadequate disclosures in non-financial risk.

In another dimension, the volume of monetary risk with non-monetary risk disclosures was also compared. It is revealed that monetary risk constitute only around 23% of total risk disclosures, i.e., most of the risks were not quantified. Nonetheless, this could also occur because limitation in risk quantification, not the unwillingness of directors to make monetary disclosures. Thus, this marks another challenging area to improve for Thai risk disclosures. According to Beretta and Bozzolan (2004), quantification of risks should be performed wherever it is possible in order to improve quality of risk reporting. Based on this, guidance from Thai regulatory bodies could be issued to assist companies in identifying type of risks that can be measured. Additionally, instruction on various risk measurement techniques could be published to support quantification process in companies who may not have sophisticate resources in risk management function, e.g., smaller sized non-financial companies (Roffman, 1999). This fact is reflected in the result of testing hypotheses no. 3, where the evidence implies that non-financial companies tend to disclose less risk information (in overall picture) than financial companies. Financial statement users could benefit more if regulatory body can encourage higher level of risk reporting in the non-financial firm group.

Lastly, about location of risk disclosures, the study highlighted another issue, which is similar to that found in the US and UK companies. Risk disclosures are scattered around the company's annual report. This prevents us from ensuring completeness of the disclosures; also it is difficult for the users to summarize all relevant information to come up with reliable assessment of risks.

After all discussions, this study is expected to more or less enhance the readers' understanding about risk disclosures practice in Thailand, which limited number of studies in this topic are available. Last but not least, some limitations of this study must be noted in order to notice the readers and suggest the way for future study.

First of all, by applying content analysis in this study, personal judgment is inevitably involved during each process (Carney, 1972), e.g., process of considering whether a sentence is risk

disclosure or not, and to classify risk disclosures into categories. However, content analysis has been proved as an effective method for the studies in this field (Weber, 1990). To alleviate this, the researcher tried to provide as clear definition of risk and risk disclosures in each category as possible. For future research, multi-disciplinary approaches from another area like sociology may be adopted as an alternative methodology (Linsley and Shrives, 2006).

Secondly, due to limitation in time and resources, the scope of study must be confined. Future study can be made in the different scope of study such as cross-country, industry-specific (Linsley & Shrives, 2006), or longitudinal study overtime. Flannery (2000) further added that it may be more practical to focus on the context of financial reporting as holistic approach of risk discussions could be problematic. A case study type of research can also be performed to find out more directly about motivation and challenge of directors when making risk disclosures. Lastly, restriction the sample of only 30 listed companies also affects interpretation of the result, i.e., result can be taken as tentative, but may not be generalized to all Thai companies. Extension in sample size may be needed for future study, as larger sample can enhance prediction power of the statistical model, thus, better represent disclosure practice of the population.

References

Aapico Hitech, 2010, *Aapico*, annual report 2009, Bangkok: Aapico Hitech Pcl.

Abraham, S., and Cox, P., 2007.Analysing the determinants of narrative risk information in UK FTSE100 annual reports.*The British Accounting Review*,39(2007), pp.227-248.

Abrahamson, E., and Park, C., 1994.Concealment of Negative Organizational Outcomes: An Agency Theory Perspective.*Academy of Management Journal*,37(5), pp.1302-1334.

Adedeji, A., & Baker, C. R., 1999.Financial reporting of derivatives before FRS 13.*Derivative use, trading, and regulation 5*, pp.120–131.

Ahmed, K., Courtis, J.K., 1999.Associations between corporate characteristics and disclosure levels in annual reports.*The British Accounting Review*,31(1), pp.35-61.

American Institute of Certified Public Accountants (AICPA), 1987.*Report of the task force on risks and uncertainties*.New York: AICPA.

American Institute of Certified Public Accountants (AICPA),1994.*Improving business reporting: A customer focus*.New York: AICPA.

Ball, R., Robin, A., and Wu, J.S., 2002. Incentives versus standards: properties of accounting income in four East Asian countries.*Journal of Accounting and Economics*,36(2003), pp. 235–270.

Bank of Thailand, 2010.*EC_EI_027 : Thailand's Macro Economic*[Online](Updated 1 Jun 2010) Available at: http://www.bot.or.th/English/Statistics/EconomicAndFinancial/EconomicIndices/Pages/StatMacroEconomicIndicators.aspx [Accessed 1 June 2010].

Beattie, V., McInnes, W., and Fearnley, S., 2004.*Through the Eyes of Management: Narrative Reporting Across Three Sectors*.[Final Report].London: ICAEW.

Beretta, S., and Bozzolan, S., 2004.A framework for the analysis of firm risk communication.*The International Journal of Accounting*,39(3), pp.265-288.

Bowman, E.S., 1982.*Content Analysis of Annual Reports for Corporate Strategy and Risk*.[Working Paper].Massachusetts: Massachusetts Institute of Technology.

Cabedo, J.D., and Tirado, J.M., 2004.The disclosure of risk in financial statements.*Accounting Forum*,28(2004), pp.181-200.

The Cadbury Committee, 1992.Cadbury Report: Report of the committee of the financial aspects of corporate governance.[Final Report].London: The Committee on the Financial Aspects of Corporate Governance

Canadian Institute of Chartered Accountants (CICA), 2001.*Management's Discussion and Analysis: Guidance on Preparation and Disclosure*.[Review Draft], s.l.: Canadian Institute of Chartered Accountants.

Carlon, S., Loftus, J., and Miller, M. C., 2003.The challenge of risk reporting: Regulatory and corporate responses.*Australian Accounting Review*, 13(3), pp.36-51.

Carney, T.F.,1972.*Content analysis: a technique for systematic inference from communications*. Winnipeg: University of Manitoba Press.

Collins,W., Davie, E.S., Weetman, P., 1993.Management discussion and analysis: An evaluation of practice in UK and US companies.*Accounting and Business Research*, 23(90), pp.123-137.

Cowen, S.S., Linda, B.F., and Parker, L.D., 1987.The Impact of Corporate Characteristics on Social Responsibility Disclosure: A Typology and Frequency-Based.*Accounting, Organizations and Society*,12(2), pp.111-122.

Danville, C., 1997.Peregrine Sees Asia ex-Japan Bad Debts at $500Bn.*Bloomberg*, 21 Nov

Deegan, C., and Rankin, M.,1996.Do Australian Companies Objectively Report Environmental News? An Analysis of Environmental Disclosures by Firms Successfully Prosecuted by the Environmental Protection Agency.*Accounting, Auditing and Accountability Journal*,9(20), pp.50-67.

Deumes, R., 2009.Corporate Risk Reporting: A Content Analysis of Narrative Risk Disclosures in Prospectuses.*Journal of Business Communication*,45(2), pp.120-157.

Dietrich, J.R., Kachelmeier, S.J., Klienmuntz, D.N., and Linsmeier, T.J., 2001.Market Efficiency, Bounded Rationality, and Supplemental Business Reporting Disclosures.*Journal of Accounting Research*, 39(2), pp.213-268.

Dobler, M., 2008.Incentives for risk reporting: A discretionary disclosure and cheap talk approach.*The International Journal of Accounting*,43(2), pp.184-206.

Dowd, K., 2005.*Measuring market risk*.2nd ed.New York: J. Wiley & Sons

Dunne, T., Helliar, C., Power, D., Mallin, C., Ow-Yong., and K., Moir, L., 2004.The introduction of derivatives reporting in the UK: A content analysis of FRS 13 disclosures.*Journal of Derivatives Accounting,1(2)*, pp.205-219.

Ernst & Young's International Business Series, 1993.*Doing business in Hong Kong*, Hong Kong: Ernst & Young,Hong Kong.

Ernst & Young's International Business Series, 1996.*Doing business in Thailand*, Bangkok: Ernst & Young, Thailand.

Federation of Accounting Professions (FAP), 2009.*TAS 1: Presentation of Financial Statements*, Bangkok: FAP

Federation of Accounting Professions (FAP), 2009.*TAS 36: Impairment of Assets*, Bangkok: FAP

Federation of Accounting Professions (FAP), 2009.*TAS 38: Intangible Assets*, Bangkok: FAP

Federation of Accounting Professions (FAP), 2009.*TAS 40: Investment Property*, Bangkok: FAP

Financial Accounting Standard Board (FASB), 1994. *FAS119: Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments*, Connecticut: FASB.

Financial Accounting Standard Board (FASB), 1998. *FAS133: Accounting for Derivative Instruments and Hedging Activities*, Connecticut: FASB.

Financial Accounting Standards Board (FASB), 2001). *Improving business reporting: Insights into enhancing voluntary disclosures, Steering Committee Report, Business Reporting Research Project*, Connecticut: FASB.

Financial Reporting Councill, 2009.*Going Concern and Liquidity Risk: Guidance for Directors of UK Companies 2009*, London: The Financial Reporting Council Limited.

Firth, M., 1979.The effect of size, stock market listings, and auditors on voluntary disclosure in corporate annual reports.*Account and Business Research*,9(36), pp.273-280.

Flannery, M.A., 2000.Risk Communication and Reasonable Reader Concept.*Journalism and Mass Communication Educator*,55(3), pp.42-49.

Francis, J., and Schipper, K., 1999.Have Financial Statements Lost Their Relevance?.Journal of Accounting Research,37(2), pp.319-353.

German Accounting Standards Committee., 2006.*German Accounting Standards (GAS)*.Stuttgart: Schäffer-Poeschel.

Gray, S.J.,Campbell, S.G., and Shaw, J.C., 1984.*International financial reporting: A comparative survey of accounting requirements and practices in 30 countries*.London: MacMillan.

Gray, R., Kouhy, R., and Laver, S., 1995.Corporate Social and Environmental Disclosure. *Accounting, Auditing and Accountability Journal*,8(1), pp.44-77.

Hackston, D., and Milne, M.J., 1996.Some Determinants of Social and Environmental Disclosures in New Zealand companies.*Accounting, Auditing and Accountability Journal*,9(1), pp.77-108.

Harrington, S.E., and Niehaus, G.R., 2003.*Risk Management and Insurance*.International ed.Singapore: McGrawHill,

Hodder, L., Koonce, L., and McAnally, M. L., 2001.SEC market risk disclosures: Implications for judgments and decision making.*Accounting Horizons*,15(March), pp.49-70.

Holsti, O.R.,1969.*Content Analysis for the Social Sciences and Humanities*.Reading, MA: Addison-Wesley.

Hossain, M., Perera, H.H.B., Rahman, A.R., 1995.Voluntary disclosure in the annual reports of New Zealand companies.*Journal of International Financial Management and Accounting*,6(1), pp.69-85.

Institute of Chartered Accountants in England and Wales, 1998.*Financial Reporting of Risk – Proposals for a Statement of Business Risk*.London: ICAEW.

Institute of Chartered Accountants in England and Wales, 1999.*No Surprises: The Case for Better Risk Reporting*, London: ICAEW.

International Accounting Standards Board (IASB), 1997. *IAS1: Presentation of Financial Statements*, London: IASCF. International Accounting Standards Board (IASB)., 1995. *IAS32: Financial Instruments: Presentation*, London: IASCF.

International Accounting Standards Board (IASB), 1998. *IAS37: Provisions, Contingent Liabilities and Contingent Assets*, London: IASCF.

International Accounting Standard Board (IASB), 1999. *IAS39: Financial Instruments: Recognition and Measurement*, London: IASCF.

International Accounting Standards Board (IASB), 2005.*Discussion paper on management commentary*, London: IASCF.

Jensen, M., 2002.Just say no to Wall Street.*Journal of Applied Corporate Finance*,14(2002), pp.41–46.

Jorion, P., 2002.How Informative Are Value-at-Risk Disclosures?.*The Accounting Review*,77(4), pp.911-931.

Kadous, K., Koonce, L. and Towry., K.L., 2004.*Quantification and Persuasion in Managerial Judgment*.[Working Paper].Texas: University of Texas

Kajuter, P., 2001.Risikoberichterstattung: Empirische Befunde und der Entwurf des DRS 5.*Der Betrieb*,54(3), pp.105-111.

Kalathil, S., 1997.Mystery Still Shrouds Books.*Asian Wall Street Weekly Edition*, 15 Dec

Kasikorn Bank, 2010, *K Excellence*, annual report 2009, Bangkok: Kasikorn Bank Group Plc.

Krippendorff, K.,1980.*Content Analysis: An Introduction to Its Methodology*.Newbury Park, CA: Sage.

Krungthai Bank, 2010, *Convenience & Care*, annual report 2009, Bangkok: Krungthai Bank Plc.

Kuritzkes, A., Schuermann, T. And Weiner, S.M., 2002. *Risk Measurement, Risk Management and Capital Adequacy in Financial Conglomerates*.[Working Paper].Pennsylvania: The Wharton Financial Institutions Center

Lajili, K., and Zéghal, D., 2005.Content analysis of risk management disclosures in Canadian annual reports. *Canadian Journal of Administrative Sciences*, 22(2), pp.125-142.

Linsley, P.M., and Shrives, P.J., 2000.Risk management and reporting risk in the UK.*Journal of Risk*,3(1), pp.115-129.

Linsley, P.M., and Shrives, P.J., 2005.Examining Risk Reporting in UK Public Companies.*The Journal of Risk Finance*,6(40), pp.292-305.

Linsley, P.M., and Shrives, P.J., 2006.Risk Reporting: A Study of Risk Disclosures in the Annual Reports of UK Companies.*The British Accounting Review*,38(2006), pp.387-404.

Linsmeier, T.J., Thornton D.B., Venkatachalam M., and Welker, M., 2002.The Effect of Mandated Market Risk Disclosures on Trading Volume Sensitivity to Interest Rate, Exchange Rate, and Commodity Price Movements.*The Accounting Review*,77(2), pp.343-377.

London Stock Exchange, 1998.*Combined Code*, London: The Stock Exchange Limited

Lupton, D., 1999.*Risk*.London: Routledge.

MacDonald, S.B., 1998.Transparency in Thailand's 1997 Economic Crisis: The Significance of Disclosure.*Asian Survey*,38(7), pp.688-702.

Malone, D., Fries, C., Jones, T., 1993.An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry.*Journal of Accounting, Auditing and Finance*,8(3), pp.249-273.

McIIwraith, R., and Dealy, N., 2000.Learning from experience.*Accountancy*, February, pp.88-90

Miller, E.M., 1977.Risk, Uncertainty, and Divergence of Opinion.*The Journal of Finance*,32(4), pp.1151-1168.

Milne, M.J. and Adler, R.W.,1999.Exploring the Reliability of Social and Environmental Disclosures Content Analysis',*Accounting, Auditing and Accountability Journal*,12(2), pp.237-256.

Mohobbot, A. M., 2005. Corporate risk reporting practices in annual reports of Japanese Companies. *Journal of the Japanese Association for International Accounting Studies*, 2005(March), pp.113-133.

Morgan, D.P., 2002.Rating Banks: Risk and Uncertainty in an Opaque Industry.*The American Economic Review*,92(4), pp.874-888.

Price Waterhouse Information Guide, 1995. *Doing business in Hong Kong*.Price Waterhouse, Hong Kong.

Rajgopal, S., 1999.Early evidence on the informativeness of the SEC's market risk disclosures: The case of commodity price risk exposure of oil and gas producers.*The Accounting Review*,74(3), pp.251-280.

Russell, C,. and Joselito, D., 1998.Corporate Accounting Disclosure in ASEAN.*Journal of International Financial Management and Accounting*,9(3), pp.246-274.

Roberts, R.W., 1992.Determinants of Corporate Social Responsibility Disclosure: An Application of Stakeholder Theory.*Accounting Organizations and Society*,17(6), pp.595-612.

Roffman, P., 1999.*The Evolution of Risk Management in the Non-Financial Corporation*.Canadian Treasurer,2 Jun

Roulestone, D., 1999.Effect of SEC Financial Reporting Release No. 48 on Derivative and Market Risk Disclosures.*Accounting Horrizons*,13(4), pp.343-364.

Schrand, C. M., and Elliott, J. A., 1998. Risk and financial reporting: A summary of the discussion at the 1997 AAA/FASB conference.*Accounting Horizons*, 12(September), pp. 271-282.

Siklos, P,. 2001.*Money, Banking, and Financial Institutions: Canada in the Global Environment*.Toronto: McGraw-Hill Ryerson

Skinner, D.J., 1994.Why Firms Voluntarily Disclose Bad News.Journal of Accounting Research,32, pp.38-61

Standard & Poor's., 2002.Transparency and Disclosure: Overview of Methodology and Study Results—United States.[Final Report].New York: Standard & Poor's.

Solomon., J.F., Solomon., A., Norton., S.D., and Joseph., N.L., 2000.A Conceptual Framework for Corporate Risk Disclosure Emerging from the Agenda for Corporate Governance Reform.*British Accounting Review*,32(4), pp.447-478.

Tilt C.A. 2001.The Content and Disclosure of Australian Corporate Environmental Policie. *Accounting, Auditing and Accountability Journal*,14(2), pp.190-212.

Thai Oil, 2010.*Pave the Way to Sustainable Growth*.annual report, 2009, Bangkok: Thai Oil Group Plc.

Turnbull Report Committee, 1999. *Internal Control: Guidance for Directors on the Combined Code*. London: ICAEW.

Verrecchia, R., 1990.Information quality and discretionary disclosure.*Journal of Accounting and Economics*,12, pp.365-80.

Weber, R. P.,1990).*Basic Content Analysis*,2nd ed. Newbury Park, CA.

Wilson, C.R., Voorhis, V., and Morgan, B.L., 2007.Understanding Power and Rules of Thumb for Determining Sample.*Tutorials in Quantitative Methods for Psychology*,3(2), pp.43-50.

Woods, M., Reber, B., 2003.*A comparison of UK and German reporting practice in respect of disclosure post GAS5.6th Financial Reporting and Business Communication Conference*.Cardiff, Cardiff: The United Kingdom.Cardiff Business School.

Young, D., and Guenter, D., 2003.Financial reporting environments and international capital mobility.*Journal of Accounting Research*,41(3), pp.553-579

Appendices

Appendix 1: List of 30 sampled companies with details for hypotheses testing

No.	Company name	SET symbol	Industry	Financial/ Non-financial (Hypothesis 3)	Market Capitalization (Baht)*	Size Group (Hypothesis 1)	Price/ Book Value ratio	PV ratio Group (Hypothesis 2)	Debt ratio**	Debt ratio Group (Hypothesis 2)
1	The Siam Commercial Bank Pcl.	SCB	Banking	Financial	282,413.97	Large	1.91	Moderate	8.13	High
2	Bangkok Bank Pcl.	BBL	Banking	Financial	244,331.89	Large	1.19	Low	7.97	High
3	Kasikorn Bank Pcl.	KBANK	Banking	Financial	223,171.51	Large	1.74	Moderate	9.30	High
4	Krung Thai Bank Pcl.	KTB	Banking	Financial	148,690.66	Large	1.28	Low	12.72	High
5	Bank of Ayudhya Pcl.	BAY	Banking	Financial	120,875.46	Large	1.28	Low	7.43	High
6	Thai Oil Pcl.	TOP	Energy	Non-financial	87,721.20	Medium	1.28	Low	0.92	Moderate
7	IRPC Pcl.	IRPC	Energy	Non-financial	83,554.26	Medium	1.12	Low	0.59	Low
8	PTT Pcl.	PTT	Energy	Non-financial	704,088.40	Large	1.56	Moderate	1.22	Moderate
9	Ratchaburi Electricity Generating Holding Pcl.	RATCH	Energy	Non-financial	53,650.00	Medium	1.21	Low	0.56	Moderate
10	Banpu Pcl.	BANPU	Energy	Non-financial	168,483.67	Large	3.29	High	0.81	Moderate
11	Electricity Generating Pcl.	EGCO	Energy	Non-financial	46,197.30	Medium	0.88	Low	0.23	Low
12	Glow Energy Pcl.	GLOW	Energy	Non-financial	56,686.02	Medium	1.74	Moderate	1.32	Moderate
13	Aapico Hitech Pcl.	AH	Manufacturing – Automobile	Non-financial	2,310.45	Small	0.64	Low	1.22	Moderate

No.	Company name	SET symbol	Industry	Financial/ Non-financial (Hypothesis 3)	Market Capitalization (Baht)*	Size Group (Hypothesis 1)	Price/ Book Value ratio	PV ratio Group (Hypothesis 2)	Debt ratio**	Debt ratio Group (Hypothesis 2)
14	Alucon Pcl.	ALUCON	Manufacturing – Metal products	Non-financial	6,696.00	Small	2.76	High	0.58	Low
15	Polyplex (Thailand) Pcl.	PTL	Manufacturing – Container	Non-financial	7,360.00	Small	1.92	Moderate	0.77	Moderate
16	Bata Pcl.	BATA	Manufacturing – Shoes	Non-financial	573.95	Small	1.46	Moderate	0.64	Low
17	Inoue Rubber (Thailand) Pcl.	IRC	Manufacturing – Automobile	Non-financial	2,740.00	Small	1.49	Moderate	0.61	Low
18	The Siam Cement Pcl.	SCC	Manufacturing – Hardware	Non-financial	319,200.00	Large	3.05	High	1.40	Moderate
19	Diamond Roofing Tiles Pcl.	DRT	Manufacturing – Hardware	Non-financial	4,004.99	Small	2.39	High	0.47	Low
20	Charoen Pokphand Foods Pcl.	CPF	Manufacturing – Food	Non-financial	161,678.66	Large	3.04	High	1.10	Moderate
21	S&P Syndicate Pcl.	S&P	Manufacturing – Food	Non-financial	4,187.45	Small	2.04	High	0.28	Low
22	Sahamit Machinery Pcl.	SMIT	Manufacturing – Metal products	Non-financial	1,054.70	Small	0.8	Low	0.47	Low
23	Thai Union Frozen Pcl.	TUF	Manufacturing – Food	Non-financial	38,197.14	Medium	2.72	High	0.95	Moderate
24	The Ayudhya Insurance Pcl.	AYUD	Insurance	Financial	4,200.00	Small	0.76	Low	0.23	Low
25	Muang Thai Insurance Pcl.	MTI	Insurance	Financial	3,481.00	Small	0.96	Low	1.00	Moderate
26	Thaivivat Insurance Pcl.	TVI	Insurance	Financial	412.08	Small	0.57	Low	2.31	High
27	Kim Eng Securities (Thailand) Pcl.	KEST	Investment and Securities	Financial	6,963.94	Small	1.84	Moderate	0.57	Low

No.	Company name	SET symbol	Industry	Financial/ Non-financial (Hypothesis 3)	Market Capitalization (Baht)*	Size Group (Hypothesis 1)	Price/ Book Value ratio	PV ratio Group (Hypothesis 2)	Debt ratio**	Debt ratio Group (Hypothesis 2)
28	Seamico Securities Pcl.	ZMICO	Investment and Securities	Financial	1,567.72	Small	0.79	Low	0.09	Low
29	Siam City Bank Pcl.	SCIB	Banking	Financial	67,609.94	Medium	1.53	Moderate	8.80	High
30	TMB Bank Pcl.	TMB	Banking	Financial	84,445.75	Medium	1.79	Moderate	10.50	High

* Market Capitalization was measured as of the 7th July 2010

** Debt ratio was calculated by Total Liabilities/Total Equity

Appendix 2: Types of risks in each categorization

Category	Types of risks
Financial risk	Interest rate
	Exchange rate
	Commodity
	Liquidity
	Credit
Operationas risk	Customer satisfaction
	Product development
	Efficiency and performance
	Sourcing
	Stock obsolescence and Shrinkage
	Product and service failure
	Environmental
	Health and safety
	Brand name erosion
Empowerment risk	Leaership and management
	Outsourcing
	Performance incentives
	Change readiness
	Communications
Information processing and technology risk	Integrity
	Access
	Availability
	Infrastructure
Integrity risk	Management and employee fraud
	Illegal acts
	Reputation
Strategic risk	Environmental scan
	Economy
	Industry
	Business portfolio
	Competitors
	Pricing
	Valuation
	Planning

Appendix 3: SPSS output table of basic statistics summary

Statistics

Total

N	Valid	30
	Missing	0
Mean		248.97
Std. Deviation		161.517
Variance		2.609E4
Minimum		28
Maximum		598

Appendix 4: SPSS results for testing of hypothesis 1(a)

Descriptives

Total

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	9	387.44	140.227	46.742	279.66	495.23	130	519
2	8	306.50	136.685	48.326	192.23	420.77	162	598
3	13	117.69	61.485	17.053	80.54	154.85	28	247
Total	30	248.97	161.517	29.489	188.66	309.28	28	598

Test of Homogeneity of Variances

Total

Levene Statistic	df1	df2	Sig.
3.542	2	27	.043

ANOVA

Total

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	423093.975	2	211546.988	17.129	.000
Within Groups	333452.991	27	12350.111		
Total	756546.967	29			

Post Hoc

Multiple Comparisons

Total
Scheffe

(I) Size	(J) Size	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	80.944	54.000	.340	-58.92	220.81
	3	269.752*	48.190	.000	144.94	394.56
2	1	-80.944	54.000	.340	-220.81	58.92
	3	188.808*	49.938	.003	59.47	318.15
3	1	-269.752*	48.190	.000	-394.56	-144.94
	2	-188.808*	49.938	.003	-318.15	-59.47

*. The mean difference is significant at the 0.05 level.

Note: Group '1' as 'large' companies, Group '2' as 'medium' companies and Group '3' as 'small' companies

Appendix 5: SPSS results for testing of hypothesis 1(b)

Descriptives

Financial

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	9	170.333	105.6314	35.2105	89.138	251.529	16.0	293.0
2	8	120.125	112.1522	39.6518	26.363	213.887	47.0	357.0
3	13	27.769	10.5763	2.9333	21.378	34.160	15.0	50.0
Total	30	95.167	100.6082	18.3685	57.599	132.734	15.0	357.0

Test of Homogeneity of Variances

Financial

Levene Statistic	df1	df2	Sig.
19.159	2	27	.000

ANOVA

Financial

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	114884.984	2	57442.492	8.681	.001
Within Groups	178653.183	27	6616.785		
Total	293538.167	29			

Post Hoc

Multiple Comparisons

Financial
Scheffe

(I) Size	(J) Size	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	50.2083	39.5259	.457	-52.165	152.582
	3	142.5641*	35.2730	.002	51.206	233.922
2	1	-50.2083	39.5259	.457	-152.582	52.165
	3	92.3558	36.5524	.057	-2.316	187.028
3	1	-142.5641*	35.2730	.002	-233.922	-51.206
	2	-92.3558	36.5524	.057	-187.028	2.316

*. The mean difference is significant at the 0.05 level.

Note: Group '1' as 'large' companies, Group '2' as 'medium' companies and Group '3' as 'small' companies

Appendix 6: SPSS results for testing of hypothesis 1(c)

Descriptives

NonFinancial

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	9	217.111	75.4925	25.1642	159.082	275.140	67.0	290.0
2	8	186.375	51.5639	18.2306	143.266	229.484	108.0	270.0
3	13	89.923	57.8784	16.0526	54.948	124.899	.0	197.0
Total	30	153.800	83.4619	15.2380	122.635	184.965	.0	290.0

Test of Homogeneity of Variances

NonFinancial

Levene Statistic	df1	df2	Sig.
.606	2	27	.553

ANOVA

NonFinancial

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	97607.113	2	48803.557	12.621	.000
Within Groups	104403.687	27	3866.803		
Total	202010.800	29			

Post Hoc

Multiple Comparisons

NonFinancial
Scheffe

(I) Size	(J) Size	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	30.7361	30.2158	.602	-47.524	108.996
	3	127.1880*	26.9646	.000	57.349	197.027
2	1	-30.7361	30.2158	.602	-108.996	47.524
	3	96.4519*	27.9427	.007	24.079	168.824
3	1	-127.1880*	26.9646	.000	-197.027	-57.349
	2	-96.4519*	27.9427	.007	-168.824	-24.079

*. The mean difference is significant at the 0.05 level.

Note: Group '1' as 'large' companies, Group '2' as 'medium' companies and Group '3' as 'small' companies

Appendix 7: SPSS results for testing of hypothesis 2(a)

Debt Ratio

Descriptives

Total

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	11	134.64	74.850	22.568	84.35	184.92	28	248
2	11	223.27	92.946	28.024	160.83	285.71	86	367
3	8	441.50	154.241	54.532	312.55	570.45	93	598
Total	30	248.97	161.517	29.489	188.66	309.28	28	598

Test of Homogeneity of Variances

Total

Levene Statistic	df1	df2	Sig.
.843	2	27	.441

ANOVA

Total

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	447600.239	2	223800.120	19.559	.000
Within Groups	308946.727	27	11442.471		
Total	756546.967	29			

Post Hoc

Multiple Comparisons

Total
Scheffe

(I) TL_TE	(J) TL_TE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-88.636	45.612	.171	-206.77	29.50
	3	-306.864*	49.704	.000	-435.60	-178.13
2	1	88.636	45.612	.171	-29.50	206.77
	3	-218.227*	49.704	.001	-346.96	-89.49
3	1	306.864*	49.704	.000	178.13	435.60
	2	218.227*	49.704	.001	89.49	346.96

*. The mean difference is significant at the 0.05 level.

Note: Group 1, 2 and 3 as companies with low, moderate and high debt ratio respectively

P/B Ratio

Descriptives

Total

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	13	239.77	167.804	46.540	138.37	341.17	79	513
2	10	315.40	170.654	53.965	193.32	437.48	28	598
3	7	171.14	107.172	40.507	72.03	270.26	63	367
Total	30	248.97	161.517	29.489	188.66	309.28	28	598

Test of Homogeneity of Variances

Total

Levene Statistic	df1	df2	Sig.
.963	2	27	.394

ANOVA

Total

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	87629.402	2	43814.701	1.769	.190
Within Groups	668917.565	27	24774.725		
Total	756546.967	29			

Post Hoc

Multiple Comparisons

Total
Scheffe

(I) P_BV	(J) P_BV	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-75.631	66.206	.529	-247.11	95.84
	3	68.626	73.790	.653	-122.49	259.75
2	1	75.631	66.206	.529	-95.84	247.11
	3	144.257	77.568	.196	-56.65	345.16
3	1	-68.626	73.790	.653	-259.75	122.49
	2	-144.257	77.568	.196	-345.16	56.65

Note: Group 1, 2 and 3 as companies with low, moderate and high P/B ratio respectively

Appendix 8: SPSS results for testing of hypothesis 2(b)

Debt Ratio

Descriptives

Financial

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	11	32.73	12.017	3.623	24.65	40.80	15	56
2	11	55.36	27.347	8.245	36.99	73.74	15	91
3	8	235.75	97.243	34.381	154.45	317.05	19	357
Total	30	95.17	100.608	18.368	57.60	132.73	15	357

Test of Homogeneity of Variances

Financial

Levene Statistic	df1	df2	Sig.
3.572	2	27	.042

ANOVA

Financial

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	218421.939	2	109210.970	39.255	.000
Within Groups	75116.227	27	2782.082		
Total	293538.167	29			

Post Hoc

Multiple Comparisons

Financial
Scheffe

(I) TL_TE	(J) TL_TE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-22.636	22.491	.608	-80.89	35.62
	3	-203.023*	24.509	.000	-266.50	-139.54
2	1	22.636	22.491	.608	-35.62	80.89
	3	-180.386*	24.509	.000	-243.86	-116.91
3	1	203.023*	24.509	.000	139.54	266.50
	2	180.386*	24.509	.000	116.91	243.86

*. The mean difference is significant at the 0.05 level.

Note: Group 1, 2 and 3 as companies with low, moderate and high debt ratio respectively

P/B Ratio

Descriptives

Financial

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	13	88.231	99.4360	27.5786	28.142	148.319	15.0	293.0
2	10	132.600	126.3665	39.9606	42.203	222.997	16.0	357.0
3	7	54.571	28.8609	10.9084	27.880	81.263	15.0	91.0
Total	30	95.167	100.6082	18.3685	57.599	132.734	15.0	357.0

Test of Homogeneity of Variances

Financial

Levene Statistic	df1	df2	Sig.
7.450	2	27	.003

ANOVA

Financial

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	26173.745	2	13086.872	1.322	.283
Within Groups	267364.422	27	9902.386		
Total	293538.167	29			

Post Hoc

Multiple Comparisons

Financial
Scheffe

(I) P_BV	(J) P_BV	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-44.3692	41.8564	.577	-152.779	64.040
	3	33.6593	46.6514	.773	-87.169	154.488
2	1	44.3692	41.8564	.577	-64.040	152.779
	3	78.0286	49.0394	.298	-48.985	205.042
3	1	-33.6593	46.6514	.773	-154.488	87.169
	2	-78.0286	49.0394	.298	-205.042	48.985

Note: Group 1, 2 and 3 as companies with low, moderate and high P/B ratio respectively

Appendix 9: SPSS results for testing of hypothesis 2(c)

Debt Ratio

Descriptives

NonFinancial

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	11	101.909	69.2206	20.8708	55.406	148.412	.0	201.0
2	11	167.909	84.0815	25.3515	111.422	224.396	67.0	290.0
3	8	205.750	65.4648	23.1453	151.020	260.480	74.0	282.0
Total	30	153.800	83.4619	15.2380	122.635	184.965	.0	290.0

Test of Homogeneity of Variances

NonFinancial

Levene Statistic	df1	df2	Sig.
.745	2	27	.484

ANOVA

NonFinancial

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	53399.482	2	26699.741	4.851	.016
Within Groups	148611.318	27	5504.123		
Total	202010.800	29			

Post Hoc

Multiple Comparisons

NonFinancial
Scheffe

(I) TL_TE	(J) TL_TE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-66.0000	31.6346	.133	-147.935	15.935
	3	-103.8409*	34.4730	.020	-193.127	-14.555
2	1	66.0000	31.6346	.133	-15.935	147.935
	3	-37.8409	34.4730	.555	-127.127	51.445
3	1	103.8409*	34.4730	.020	14.555	193.127
	2	37.8409	34.4730	.555	-51.445	127.127

*. The mean difference is significant at the 0.05 level.

Note: Group 1, 2 and 3 as companies with low, moderate and high debt ratio respectively

P/B Ratio

Descriptives

NonFinancial

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	13	151.538	82.8861	22.9885	101.451	201.626	49.0	282.0
2	10	182.800	79.0651	25.0026	126.240	239.360	.0	290.0
3	7	116.571	86.7273	32.7798	36.362	196.781	25.0	287.0
Total	30	153.800	83.4619	15.2380	122.635	184.965	.0	290.0

Test of Homogeneity of Variances

NonFinancial

Levene Statistic	df1	df2	Sig.
.591	2	27	.561

ANOVA

NonFinancial

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18178.255	2	9089.127	1.335	.280
Within Groups	183832.545	27	6808.613		
Total	202010.800	29			

Post Hoc

Multiple Comparisons

NonFinancial
Scheffe

(I) P_BV	(J) P_BV	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-31.2615	34.7074	.671	-121.155	58.632
	3	34.9670	38.6833	.669	-65.224	135.158
2	1	31.2615	34.7074	.671	-58.632	121.155
	3	66.2286	40.6635	.282	-39.091	171.548
3	1	-34.9670	38.6833	.669	-135.158	65.224
	2	-66.2286	40.6635	.282	-171.548	39.091

Note: Group 1, 2 and 3 as companies with low, moderate and high P/B ratio respectively

Appendix 10: SPSS results for testing of hypothesis 3(a), 3(b) and 3(c)

Hypothesis 3(a)

Mann-Whitney

Ranks

	S ...	N	Mean Rank	Sum of Ranks
Total	1	12	19.75	237.00
	2	18	12.67	228.00
	Total	30		

Test Statistics[b]

	Total
Mann-Whitney U	57.000
Wilcoxon W	228.000
Z	-2.159
Asymp. Sig. (2-tailed)	.031
Exact Sig. [2*(1-tailed Sig.)]	.031[a]

a. Not corrected for ties.

b. Grouping Variable: S_Industry

Hypothesis 3(b)

Mann-Whitney

Ranks

	S ...	N	Mean Rank	Sum of Ranks
Financial	1	12	18.71	224.50
	2	18	13.36	240.50
	Total	30		

Test Statistics[b]

	Financial
Mann-Whitney U	69.500
Wilcoxon W	240.500
Z	-1.630
Asymp. Sig. (2-tailed)	.103
Exact Sig. [2*(1-tailed Sig.)]	.104[a]

a. Not corrected for ties.

b. Grouping Variable: S_Industry

Hypothesis 3(c)

Mann-Whitney

Ranks

	S ...	N	Mean Rank	Sum of Ranks
NonFinancial	1	12	17.79	213.50
	2	18	13.97	251.50
	Total	30		

Test Statistics[b]

	NonFinancial
Mann-Whitney U	80.500
Wilcoxon W	251.500
Z	-1.164
Asymp. Sig. (2-tailed)	.244
Exact Sig. [2*(1-tailed Sig.)]	.249[a]

a. Not corrected for ties.

b. Grouping Variable: S_Industry

Note: Group '1' as 'financial' companies, and Group '2' as 'non-financial' companies

Appendix 11: SPSS results for testing of hypothesis 4-6

Hypothesis 4

Mann-Whitney

Ranks

	Mo...	N	Mean Rank	Sum of Ranks
Mon_Nonmon_diff	0	0[a]	.00	.00
	1	30	15.50	465.00
	Total	30		

a. Mann-Whitney Test cannot be performed on empty groups.

Note: Group '0' represents companies whose number of monetary risk disclosures exceeds number of non-monetary disclosures, and Group '1' for the opposite case.

Hypothesis 5

Mann-Whitney

Ranks

	Pa...	N	Mean Rank	Sum of Ranks
Past_Future_diff	0	1	1.00	1.00
	1	29	16.00	464.00
	Total	30		

Test Statistics[b]

	Past_Future_diff
Mann-Whitney U	.000
Wilcoxon W	1.000
Z	-1.675
Asymp. Sig. (2-tailed)	.094
Exact Sig. [2*(1-tailed Sig.)]	.067[a]

a. Not corrected for ties.

b. Grouping Variable: Past_Future

Note: Group '0' represents companies whose number of future risk disclosures exceeds number of past risk disclosures, and Group '1' for the opposite case.

Hypothesis 6

Mann-Whitney

Ranks

	Gu...	N	Mean Rank	Sum of Ranks
Gud_Bad_diff	0	16	20.50	328.00
	1	12	6.50	78.00
	Total	28		

Test Statistics[b]

	Gud_Bad_diff
Mann-Whitney U	.000
Wilcoxon W	78.000
Z	-4.460
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000[a]

a. Not corrected for ties.

b. Grouping Variable: Gud_Bad

Note: Group '0' represents companies whose number of good risk disclosures exceeds number of bad risk disclosures, and Group '1' for the opposite case.

Appendix 12: Codified risk disclosures of each company in the sample

Sample no. 1: The Siam Commercial Bank Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						18		18
Non-monetary/Bad news/Future	E						4		4
Non-monetary/Neutral/Future	F						1		1
Monetary/Good news/Past	G	3					5	4	12
Monetary/Bad news/Past	H	193					2		195
Monetary/Neutral/Past	I	3					5	32	40
Non-monetary/Good news/Past	J	1					19	4	24
Non-monetary/Bad news/Past	K	1					18		19
Non-monetary/Neutral/Past	L						10	1	11
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	63	62		9	36	4	21	195
Total		**264**	**62**	**0**	**9**	**36**	**86**	**62**	**519**

Sample no. 2: Bangkok Bank Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C	4							4
Non-monetary/Good news/Future	D		1		3		52		56
Non-monetary/Bad news/Future	E	1					7		8
Non-monetary/Neutral/Future	F						6		6
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H		2						2
Monetary/Neutral/Past	I	128	2					4	134
Non-monetary/Good news/Past	J				9		18	2	29
Non-monetary/Bad news/Past	K	3					16		19
Non-monetary/Neutral/Past	L	25	3				2		30
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	92	18	10	4	46	15	10	195
Total		**253**	**26**	**10**	**16**	**46**	**116**	**16**	**483**

Sample no. 3: Kasikorn Bank Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						9		9
Non-monetary/Bad news/Future	E						4		4
Non-monetary/Neutral/Future	F						15		15
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H	1					3		4
Monetary/Neutral/Past	I	98						32	130
Non-monetary/Good news/Past	J	6	1			2	4		13
Non-monetary/Bad news/Past	K	3					6		9
Non-monetary/Neutral/Past	L	4					36		40
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	130		7	10	49		11	207
Total		**242**	**1**	**7**	**10**	**51**	77	**43**	**431**

Sample no. 4: Krung Thai Bank Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A						4		4
Monetary/Bad news/Future	B						2		2
Monetary/Neutral/Future	C						1		1
Non-monetary/Good news/Future	D						16		16
Non-monetary/Bad news/Future	E						26		26
Non-monetary/Neutral/Future	F						5		5
Monetary/Good news/Past	G						9		9
Monetary/Bad news/Past	H	2					7		9
Monetary/Neutral/Past	I	91	1				1	8	101
Non-monetary/Good news/Past	J	7				1	8		16
Non-monetary/Bad news/Past	K	5					31		36
Non-monetary/Neutral/Past	L	18	11					2	31
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	108	23	17	11	76	6	16	257
Total		**231**	**35**	**17**	**11**	**77**	**116**	**26**	**513**

Sample no. 5: Bank of Ayudhya Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A						1		1
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						13		13
Non-monetary/Bad news/Future	E						18		18
Non-monetary/Neutral/Future	F	5					2		7
Monetary/Good news/Past	G	4					1		5
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	104	5				4	33	146
Non-monetary/Good news/Past	J	2				1	21		24
Non-monetary/Bad news/Past	K		3				26		29
Non-monetary/Neutral/Past	L	25				1	1	1	28
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	153	29		11	34		11	238
Total		**293**	**37**	**0**	**11**	**36**	**87**	**45**	**509**

Sample no. 6: Thai Oil Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A						1		1
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C						1		1
Non-monetary/Good news/Future	D						31		31
Non-monetary/Bad news/Future	E						18		18
Non-monetary/Neutral/Future	F						14		14
Monetary/Good news/Past	G		3						3
Monetary/Bad news/Past	H		5						5
Monetary/Neutral/Past	I	19	4				2		25
Non-monetary/Good news/Past	J	1	7			2	19		29
Non-monetary/Bad news/Past	K		1				30		31
Non-monetary/Neutral/Past	L						10		10
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	48	49		7	66			170
Total		**68**	**69**	**0**	**7**	**68**	**126**	**0**	**338**

Sample no. 7: IRPC Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						7		7
Non-monetary/Bad news/Future	E		1				5		6
Non-monetary/Neutral/Future	F	1					3		4
Monetary/Good news/Past	G		1						1
Monetary/Bad news/Past	H		1				4		5
Monetary/Neutral/Past	I	5					12		17
Non-monetary/Good news/Past	J						3		3
Non-monetary/Bad news/Past	K		3				7		10
Non-monetary/Neutral/Past	L	2	73				9		84
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	39	22	8	25	17			111
Total		**47**	**101**	**8**	**25**	**17**	**50**	**0**	**248**

Sample no. 8: PTT Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						24		24
Non-monetary/Bad news/Future	E						21		21
Non-monetary/Neutral/Future	F						1		1
Monetary/Good news/Past	G						4		4
Monetary/Bad news/Past	H						1		1
Monetary/Neutral/Past	I						7		7
Non-monetary/Good news/Past	J					4	27		31
Non-monetary/Bad news/Past	K						29		29
Non-monetary/Neutral/Past	L					3	17		20
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	16	87		13	52			168
Total		**16**	**87**	**0**	**13**	**59**	**131**	**0**	**306**

Sample no. 9: Ratchaburi Electricity Generating Holding Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	5							5
Non-monetary/Good news/Past	J								0
Non-monetary/Bad news/Past	K								0
Non-monetary/Neutral/Past	L	6	11			9			26
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	43	61		5	22			131
Total		**54**	**72**	**0**	**5**	**31**	**0**	**0**	**162**

Sample no. 10: Banpu Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						7		7
Non-monetary/Bad news/Future	E		20				1		21
Non-monetary/Neutral/Future	F	4					2		6
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H		4						4
Monetary/Neutral/Past	I	17	11						28
Non-monetary/Good news/Past	J	2	14				18		34
Non-monetary/Bad news/Past	K		3				20		23
Non-monetary/Neutral/Past	L	12	9				23		44
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	45	106		25	24			200
Total		**80**	**167**	**0**	**25**	**24**	**71**	**0**	**367**

Sample no. 11: Electricity Generating Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						3		3
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	14	1						15
Non-monetary/Good news/Past	J					1	6		7
Non-monetary/Bad news/Past	K						9		9
Non-monetary/Neutral/Past	L	7				1	26		34
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	35	91	4		43			173
Total		**56**	**92**	**4**	**0**	**45**	**44**	**0**	**241**

Sample no. 12: Glow Energy Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D		1						1
Non-monetary/Bad news/Future	E		41						41
Non-monetary/Neutral/Future	F		1						1
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H						1		1
Monetary/Neutral/Past	I	53	1						54
Non-monetary/Good news/Past	J		1				1		2
Non-monetary/Bad news/Past	K		46				2		48
Non-monetary/Neutral/Past	L	21	21						42
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	8	59			4			71
Total		**82**	**171**	**0**	**0**	**4**	**4**	**0**	**261**

Sample no. 13: Aapico Hitech Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B		3						3
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H				5	6			11
Monetary/Neutral/Past	I	2	3						5
Non-monetary/Good news/Past	J		7				5		12
Non-monetary/Bad news/Past	K		1				5		6
Non-monetary/Neutral/Past	L		2				2		4
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	13	32						45
Total		**15**	**48**	**0**	**5**	**6**	**12**	**0**	**86**

Sample no. 14: Alucon Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H		1						1
Monetary/Neutral/Past	I	20							20
Non-monetary/Good news/Past	J	2	1						3
Non-monetary/Bad news/Past	K		3						3
Non-monetary/Neutral/Past	L		2						2
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	16	18						34
Total		**38**	**25**	**0**	**0**	**0**	**0**	**0**	**63**

Sample no. 15: Polyplex (Thailand) Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D		7				23		30
Non-monetary/Bad news/Future	E		10				10		20
Non-monetary/Neutral/Future	F		3				6		9
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	21	7						28
Non-monetary/Good news/Past	J		5				8		13
Non-monetary/Bad news/Past	K		4				2		6
Non-monetary/Neutral/Past	L	3	9				5		17
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	26	69				29		124
Total		**50**	**114**	**0**	**0**	**0**	**83**	**0**	**247**

Sample no. 16: Bata Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	3							3
Non-monetary/Good news/Past	J								0
Non-monetary/Bad news/Past	K								0
Non-monetary/Neutral/Past	L								0
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	25							25
Total		**28**	**0**	**0**	**0**	**0**	**0**	**0**	**28**

Sample no. 17: Inoue Rubber (Thailand) Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						20		20
Non-monetary/Bad news/Future	E						3		3
Non-monetary/Neutral/Future	F						5		5
Monetary/Good news/Past	G		1				1		2
Monetary/Bad news/Past	H		1				1		2
Monetary/Neutral/Past	I	24							24
Non-monetary/Good news/Past	J						37		37
Non-monetary/Bad news/Past	K		1				32		33
Non-monetary/Neutral/Past	L		1				23		24
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	17					13		30
Total		**41**	**4**	**0**	**0**	**0**	**135**	**0**	**180**

Sample no. 18: The Siam Cement Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	44							44
Non-monetary/Good news/Past	J								0
Non-monetary/Bad news/Past	K						2		2
Non-monetary/Neutral/Past	L	2							2
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	17	37	6		22			82
Total		**63**	**37**	**6**	**0**	**22**	**2**	**0**	**130**

Sample no. 19: Diamond Roofing Tiles Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						1		1
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F		2				2		4
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	7					12		19
Non-monetary/Good news/Past	J						3		3
Non-monetary/Bad news/Past	K						2		2
Non-monetary/Neutral/Past	L		3			3	9		15
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	8	14	2	9	28			61
Total		**15**	**19**	**2**	**9**	**31**	**29**	**0**	**105**

Sample no. 20: Charoen Pokphand Foods Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C						1		1
Non-monetary/Good news/Future	D						16		16
Non-monetary/Bad news/Future	E						1		1
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H						2		2
Monetary/Neutral/Past	I	65					4		69
Non-monetary/Good news/Past	J		1			1	6		8
Non-monetary/Bad news/Past	K						19		19
Non-monetary/Neutral/Past	L	1	1				30		32
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	25	52			4			81
Total		**91**	**54**	**0**	**0**	**5**	**79**	**0**	**229**

Sample no. 21: S&P Syndicate Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D		1				1		2
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G						3		3
Monetary/Bad news/Past	H	1							1
Monetary/Neutral/Past	I	2					2		4
Non-monetary/Good news/Past	J						16		16
Non-monetary/Bad news/Past	K		5				5		10
Non-monetary/Neutral/Past	L						1		1
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	22	14			9	4		49
Total		**25**	**20**	**0**	**0**	**9**	**32**	**0**	**86**

Sample no. 22: Sahamit Machinery Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	7					1		8
Non-monetary/Good news/Past	J						5		5
Non-monetary/Bad news/Past	K						12		12
Non-monetary/Neutral/Past	L						8		8
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	23	8		8	7			46
Total		**30**	**8**	**0**	**8**	**7**	**26**	**0**	**79**

Sample no. 23: Thai Union Frozen Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D		10				12		22
Non-monetary/Bad news/Future	E						4		4
Non-monetary/Neutral/Future	F						3		3
Monetary/Good news/Past	G						7		7
Monetary/Bad news/Past	H						7		7
Monetary/Neutral/Past	I	42	5				11		58
Non-monetary/Good news/Past	J						25		25
Non-monetary/Bad news/Past	K						12		12
Non-monetary/Neutral/Past	L	3	3				7		13
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	25	42						67
Total		**70**	**60**	**0**	**0**	**0**	**88**	**0**	**218**

Sample no. 24: The Ayudhya Insurance Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G						1		1
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	19	4						23
Non-monetary/Good news/Past	J		1						1
Non-monetary/Bad news/Past	K						4		4
Non-monetary/Neutral/Past	L	1	1				1		3
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	11	33	1	7	1	4		57
Total		**31**	**39**	**1**	**7**	**1**	**10**	**0**	**89**

Sample no. 25: Muang Thai Insurance Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A						2		2
Monetary/Bad news/Future	B						2		2
Monetary/Neutral/Future	C						1		1
Non-monetary/Good news/Future	D						17		17
Non-monetary/Bad news/Future	E						4		4
Non-monetary/Neutral/Future	F						2		2
Monetary/Good news/Past	G								0
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	6					1		7
Non-monetary/Good news/Past	J								0
Non-monetary/Bad news/Past	K						6		6
Non-monetary/Neutral/Past	L						2		2
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	14	34			21			69
Total		**20**	**34**	**0**	**0**	**21**	**37**	**0**	**112**

Sample no. 26: Thaivivat Insurance Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C						1		1
Non-monetary/Good news/Future	D						11		11
Non-monetary/Bad news/Future	E		3				2		5
Non-monetary/Neutral/Future	F						5		5
Monetary/Good news/Past	G						3		3
Monetary/Bad news/Past	H								0
Monetary/Neutral/Past	I	6	10						16
Non-monetary/Good news/Past	J						9		9
Non-monetary/Bad news/Past	K						2		2
Non-monetary/Neutral/Past	L	6					16		22
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	7	7				5		19
Total		**19**	**20**	**0**	**0**	**0**	**54**	**0**	**93**

Sample no. 27: Kim Eng Securities (Thailand) Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D		2						2
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G						5		5
Monetary/Bad news/Past	H						2		2
Monetary/Neutral/Past	I	1	4				8		13
Non-monetary/Good news/Past	J		1			1	18		20
Non-monetary/Bad news/Past	K						16		16
Non-monetary/Neutral/Past	L		3				15		18
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	18	73		11	20			122
Total		**19**	**83**	**0**	**11**	**21**	**64**	**0**	**198**

Sample no. 28: Seamico Securities Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E								0
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G						7		7
Monetary/Bad news/Past	H		1						1
Monetary/Neutral/Past	I	24	3				21		48
Non-monetary/Good news/Past	J					6	12		18
Non-monetary/Bad news/Past	K						4		4
Non-monetary/Neutral/Past	L						11		11
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	6	11	6	11	33	8		75
Total		**30**	**15**	**6**	**11**	**39**	**63**	**0**	**164**

Sample no. 29: Siam City Bank Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D								0
Non-monetary/Bad news/Future	E						7		7
Non-monetary/Neutral/Future	F						2		2
Monetary/Good news/Past	G	5	2					2	9
Monetary/Bad news/Past	H	4	1				2		7
Monetary/Neutral/Past	I	112	7				1	5	125
Non-monetary/Good news/Past	J	2					10	1	13
Non-monetary/Bad news/Past	K	1	1				10		12
Non-monetary/Neutral/Past	L	15	9						24
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	88	39		9	44		7	187
Total		**227**	**59**	**0**	**9**	**44**	**32**	**15**	**386**

Sample no. 30: TMB Bank Pcl.

Risk Categorisation	Type	Financial risks	Operations risks	Empowerment risks	Info processing & technology risks	Integrity risks	Strategic risks	Capital structure & adequacy	Total
Monetary/Good news/Future	A								0
Monetary/Bad news/Future	B								0
Monetary/Neutral/Future	C								0
Non-monetary/Good news/Future	D						7		7
Non-monetary/Bad news/Future	E						6		6
Non-monetary/Neutral/Future	F								0
Monetary/Good news/Past	G						5	4	9
Monetary/Bad news/Past	H						1		1
Monetary/Neutral/Past	I	130	3				3	44	180
Non-monetary/Good news/Past	J						1	2	3
Non-monetary/Bad news/Past	K		1				4		5
Non-monetary/Neutral/Past	L	1					8	17	26
Subtotal									0
Non-monetary/neutral/non-time specific statements of risk management policy	M	226	123			12			361
Total		**357**	**127**	**0**	**0**	**12**	**35**	**67**	**598**