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***Critical Success Factors for effective
risk management procedures in financial industries***

A study from the perspectives of the financial institutions in Thailand

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Abstract

Risk management has become an important topic for financial institutes, especially since the business sector of financial services is related to conditions of uncertainty. The turmoil of the financial industry emphasizes the importance of effective risk management procedures. Consequently, this thesis studies “*What are the critical success factors for effective risk management procedures in financial industries?*” This research question was formulated in order to gain a better understanding of risk management procedures and to examine the critical success factors for effective risk management procedures.

To explore the importance of critical success factors in a practical context, we used the quantitative method of a self-completion questionnaire in order to collect data from a selection of financial institutions in Thailand. Financial institutions include banks, the stock exchange, insurance, stock securities, asset management and so on. Due to the fact that top-level management is directly responsible for risk management, the target groups included a range of positions from supervisors to board of directors.

This research found a set of seven critical success factors which can be used as a guideline on how to increase the effectiveness of risk management procedures. These factors are (1). Commitment and support from top management, (2) Communication, (3) Culture, (4) Information technology (IT), (5) Organization structure, (6) Training and (7) Trust. Because risk management is an important part of the financial industry, effectiveness is vital to increase project success. These seven factors can increase the effectiveness of risk management procedures from the perspective of the financial industry in Thailand.

Keywords: Risk management, Critical success factors, Commitment and support from top management, Communication, Culture, Information technology (IT), Organization structure, Training and Trust.

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Chapter 1: Introduction

This chapter presents the background of this thesis aims to understand why risk management is important and describes overview of thesis area. After that we set of research question for research followed by describes the purpose of this research.

1.1 Background

To provide some background, we will begin with a brief discussion of the beginning of the financial industries turmoil. The East Asian financial crisis and market turmoil started in 1997. Since the Thai government allowed floating Thai baht, the baht devalued about 20%. The currencies of the East Asian countries subsequently suffered immense decline and some finance companies failed immediately prior to the baht devaluation (Chowdhry and Goyal, 2000).

Kirida Bhaopichitr mentions in the December 1997 edition of *The Nation* (Bangkok) that since August 1997, the situation in the financial sector had become critical and 42 more finance companies were shut down. Thailand was confronted with a reserves problem and currency defence. Since, The Bank of Thailand changed the exchange rate system to float rate system the baht has fallen dramatically. With the depreciated baht the financial sector found it more difficult to repay their foreign debts because of the Thai baht float and the debt in baht rose. For this reason, it was hard to obtain foreign funds which forced more firms to shut down (Bhaopichitr, 1997).

Thereafter, in 2007, the global financial crisis affected Thailand in the area of subprime mortgages. Subprime mortgages are the most well-known instance of underwriting failure and they triggered turmoil, the loosening of credit standards and the contracting of market risk premiums. This was caused by the revenues of the originators of subprime mortgages coming from loan volume. Some originators were giving loans focusing upon the quantity rather than quality of these loans. When house prices began to stagnate and then fall, many subprime borrowers could not pay back. Due to the fact that subprime loans were frequently securitized and incorporated into complex structured products, the resulting losses spread throughout the financial system (Bernanke, 2008). In our view, the main reason for the subprime crisis is the financial institute's lack of risk management practices, the result of which is that financial institutions are neither able to estimate their actual losses nor confront potential liquidity problems and deteriorating credit conditions.

Hitherto, the financial industry has always been affected by unsystematic changes such as changes in the economic situation (uncertain interest rates, foreign exchange rates), political changes, social changes and systematic risk such as internal controls, corporate governance and information technology systems as well.

As we mentioned above, risk management has become a main topic for the financial institute especially since financial services is a business sector related to conditions of uncertainty. The

financial sector is the most influenced by the volatile conditions of the financial crisis. Financial institutions are exposed to a large number of risks through their activities. In order to promote confidence amongst a financial institution's stakeholders and shareholders, the institution must invest money into a risk management system and promote strong risk management within their organization.

1.2 Problem

Having covered the background of the financial industries' turmoil, we now turn to some of the research problems regarding effective risk management procedures in financial industries.

We are researching how to effectively manage risk and found a number of articles on the subject.

As Carey (2001) mentions in "Effective risk management in financial institutions: The turnbull approach", the operational problem in financial institutions can be life-threatening to other business. Establishing the appropriate cultural framework needs the support from all employees in every process, such as identifying, monitoring and controlling risk. This article also mentions the factors that make risk management efficient. For example, in order for the control process to be effective, the internal audit team must be taken seriously. The team can only be taken seriously if it has the authority of support from top levels of management (Carey, 2001).

Moreover, we found a document from PricewaterhouseCoopers International Limited entitled "Creating value: Effective risk management in financial services." In the document, they detail their use of an online survey and interviews with senior executives in financial institutions on the subject of risk management. The research shows "how effective is the risk management function at adding value to the business?" They begin with briefly suggesting that the financial institute must concentrate on such things as commitment from the top, embedded risk managers, culture and governance, and quality and utility of data etc (PricewaterhouseCoopers, 2007).

We found articles about effective risk management that explain the process and importance of managing risk. Some articles give examples about the critical success factors for effective risk management. For instance, some organizations set up communication policies to make sure employees are aware of recognized risk and know who to report to and recognize each other's responsibilities. Some organizations set up teams which understand the organization and have different perspectives of risk, such as an IT team focusing on IT risk. In addition, many large organizations are creating teams whose role it is to make the large range of risks in the organization understood, provide information about security risks and advise executive management on business decisions (Harris, 2006).

Most of the research from different schools recognizes the factors that have the greatest influence on implementation success. The articles discuss critical success factors in different dimensions as well as specifying which factors are important and how these factors are important. For this reason, we are researching critical success factors for effective risk management. We would like

to prove that the critical success factors for effective risk management mentioned in the articles are not only true but also suitable for the financial industries in Thailand.

1.3 Research question

“What are the critical success factors for effective risk management procedures in financial industries?”

1.4 Unit of analysis

The unit of analysis relates to concept of level is being studied. Therefore, research might focus on (1) individuals (2) groups (3) organizations (4) societies (Bryman and Bell, 2003). In this thesis designs draw on samples that are the range of positions from supervisors to board of directors in financial institutions in Thailand. Hence, the main unit of analysis is defined as individuals.

1.5 The purpose of study

The aim of this research is to gain better understanding of risk management procedures and examine the critical success factors for effective risk management procedures.

The expected result is a set of critical success factors that will be identified in the literature review section in chapter 2. This set of critical success factors will be used to outline how to increase the efficiency of risk management procedures. Due to risk management being an important part of financial industries, its effectiveness can serve to increase project success.

A set of critical success factors will be used to achieve success in financial industries. We expect the possible target group to be:

- Company or organization- They can use this framework to increase the success of their project.
- Researcher- We can share the information for further research.
- General audience- People who are interested in risk management and recognize that it is important.

This research should be used widely as base on the other management in general

1.6 Thesis structure

This section gives a structure of every chapter within this thesis. This thesis consists of six chapters. Chapter 1 Introduction: It presents the background of the thesis followed by research question and the purpose of this study. Chapter 2 Literature Review: It describes the concepts of risk management in order to understand the area of interest and explanations of each factor are used in this thesis. Chapter 3 Methodology: It presents the research approach to find the answer to our research question to fulfill the purpose of this thesis. Chapter 4 Empirical findings: It reports the results from the collection data. There are given the percentage of general's part and main's part. Chapter 5 Discussion: It discusses to answer the research question from the results of the above chapters. Finally, Chapter 6 Conclusion: It describes the thesis conclusion and gives the further suggestion. The next step is the literature review that describes the concept that related to the subject in this study.

Chapter2: Literature Review

This chapter presents the theories and articles relevant to the thesis topic of “*Critical success factors for effective risk management procedures in financial industries*”. It is divided into the following two parts: (1) Risk management and (2) Critical success factors for risk management. This chapter helps the reader understand the basics of risk management and emphasizes our critical success factors for effective risk management procedures.

2.1 Risk management

2.1.1 Risk management overview

Over the last few decades, risk management has become an area of development in financial institutions. The area of financial services has been a business sector related to conditions of uncertainty. The financial sector is the most volatile in the current financial crisis. Activities within the financial sector are exposed to a large number of risks. For this reason, risk management is more important in the financial sector than in any other sectors (Carey, 2001). Carey regards financial institutions as the main point of risk-taking in an uncertain environment.

a) What is risk?

Risk is a function of the likelihood of something happening and the degree of losing which arises from a situation or activity. Losses can be direct or indirect. For example, an earthquake can cause the direct loss of buildings. Indirect losses include lost reputation, lost customer confidence, and increased operational costs during recovery. The chance of something happening will impact the achievement of objectives (Partnerships BC, 2005 and NIST, 2004).

“Risks are usually defined by the adverse impact on profitability of several distinct sources of uncertainty. While the types and degree of risks an organization may be exposed to depend upon a number of factors such as its size, complexity business activities, volume etc” (SBP, 2003, p.1)

Risk can be classified into systematic and unsystematic risk (Al-Tamimi and Al-Mazrooei, 2007). Systematic risk refers to a risk inherent to the entire system or entire market. It is sometimes called market risk, systemic risk or un-diversification risk that cannot be avoided through diversification. Whereas, unsystematic risk is risk associated with individual assets and hence can be avoided through diversification. It is also known as specific risk, residual risk or diversifiable risk.

b) What is the risk management?

Risk management can be defined in many ways. For example, Anderson and Terp (2006) maintain that basically, risk management can be defined as a process that should seek to eliminate, reduce and control risks, enhance benefits, and avoid detriments from speculative exposures. The objective of risk management is to maximize the potential of success and minimize the probability of future losses. Risk that becomes problematic can negatively affect cost, time, quality and system performance.

The Committee of Sponsoring Organizations of the Treadway Commission (Committee of Sponsoring Organizations, 2004, p.2) defines risk management as follows:

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

Risk management is the process to manage the potential risks by identifying, analyzing and addressing them. The process can help to reduce the negative impact and emerging opportunities. The outcome may help to mitigate the likelihood of risk occurring and the negative impact when it happens (Partnerships BC, 2005).

Risk management involves identifying, measuring, monitoring and controlling risks. The process is to ensure that the individual clearly understands risk management and fulfills the business strategy and objectives (SBP, 2003).

Based on the definition above, the meaning of risk involves:

- The likelihood and consequence of something occurring.
- The chance of something happening impacting the achievement of objectives.

And risk management is about:

- The process to eliminate, reduce and control risks.
- It involves identifying, analyzing, measuring, monitoring and controlling risks
- Reducing the negative and emerging opportunities.
- Achievement of business strategy and objectives.

In order to facilitate a better understanding of risk management, the authors will describe the important process of risk management. Ergo, the following review will explain the publication of risk management frameworks.

2.1.2 The risk management procedures

Longman dictionary and BusinessDictionary.com gave the definition of “*procedure*” as.

- Longman dictionary explained the definition of “*procedure*” was “*a way of doing something, especially the correct or usual way (process).*”
- And BusinessDictionary.com gave the definition of “*procedure*” was “*fixed, step-by-step sequence of activities or course of action (with definite start and end points) that must be followed in the same order to correctly perform a task. Repetitive procedures are called routines. See also method.*”

The procedures of risk management have recently been published in a few papers. It was found in a previous publication that the risk management process is described slightly differently by different authors. According to SBP (2003), a risk management framework encompasses the scope, the process/system/procedures to manage risks and the roles and responsibilities of the individual related to risk management. The effective risk management framework includes the risk management policies and procedures that cover risk identification, acceptance, measurement, monitoring, reporting and control.

The National Institute of Standards and Technology (NIST, 2004) reviews the risk management procedures in three parts: risk assessment, risk mitigation and evaluation and assessment.

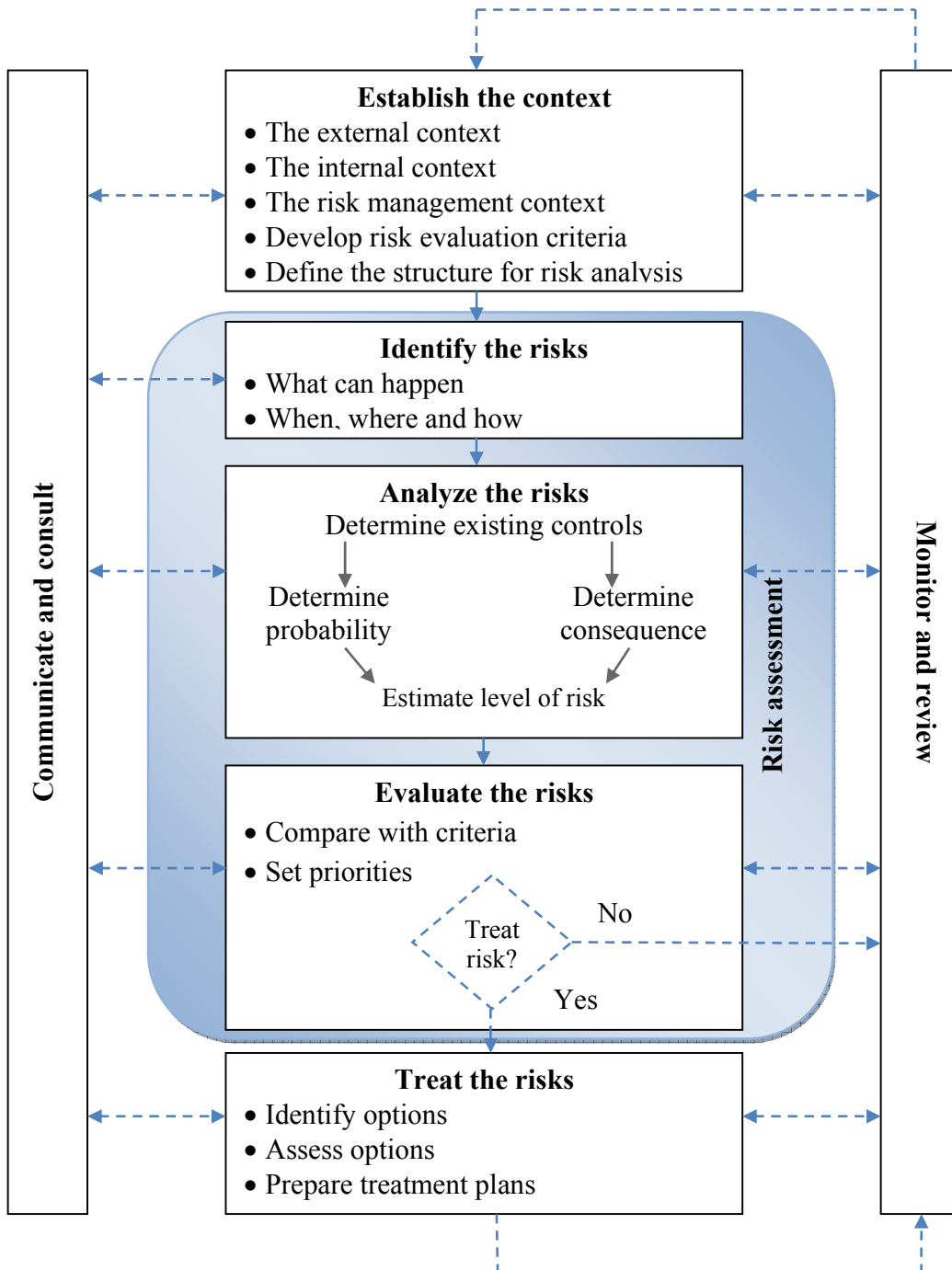
The risk assessment process includes identification, evaluation of risk impact and recommendation of risk-reducing measures. Secondly, risk mitigation involves prioritizing, maintaining and implementing the appropriate risk-reducing controls recommended by the risk assessment. Lastly, evaluation and assessment emphasize the continual evaluation process and the key factors for a successful risk management program.

The Enterprise-wide Risk Management Guideline describes the model and the process to manage risk according to the following eight sequence steps: (1) Establishing the context (2) Identifying (3) Analyzing (4) Evaluating (5) Developing the risk mitigation strategy (6) Monitoring and Reviewing the risk mitigation strategy (7) Quantifying the risks and (8) Consulting and communicating the risk (Partnerships BC, 2005).

Standards Australia and Standards New Zealand (2004) and the International Organization for Standardization (ISO/DIS 31000, 2008) design the model of risk management procedures in the same way. The process is comprised of five activities to establish the context of risk, risk assessment which is composed identifying risks, analyzing risks and evaluating risks, risk treatment, communication and consultation, and monitoring and controlling risk events.

So the framework for the risk management process presented by Standards Australia and Standards New Zealand (2004) will be the model for this study. The risk management process consists of seven iterative sub-processes shown in figure 1, which follows.

Figure 1: Details of the risk management process (source: Standards Australia and Standards New Zealand (2004))



1. Communicate and consult

Communication and consultation aim to identify who should be involved in the assessment of risk including identification, analysis and evaluation and who will be involved in the treatment, monitoring and reviewing of risk. Those people should understand the basis of decision-making and the reason why particular actions are required (Standards Australia and Standards New Zealand, 2004).

2. Establish the context

By establishing the context, the organization defines the parameters to be taken into account when managing risk, and sets the scope and risk criteria for the remaining process. This process needs to be considered in greater detail and particularly how it relates to the scope of the particular risk management process. Standards Australia and Standards New Zealand (2004) provides a five-step process to assist with establishing the context within which risk should be identified:

- The external context – is the external environment in which the organization seeks to achieve its objectives.
- The internal context – the internal environment in which the organization seeks to achieve its objectives.
- The risk management context – defines the objectives, strategies, scope and parameters of the activities of the organization or those parts of the organization where the risk management process is being applied or should be established.
- Develop risk evaluation criteria – the organization should develop criteria that should be used to evaluate the significance of risk and define acceptable levels of risk for a specific activity or event and decide what is unacceptable.
- Define the structure of risk analysis – isolate the categories of risk which are managed. The structure will provide greater depth and accuracy in identifying significant risks.

3. Risk identification

Risk identification is the basic step of risk management. This step reveals and determines the potential risks which are highly occurring and other events which occur very frequently. Risk is investigated by looking at the activity of organizations in all directions and attempting to introduce the new exposure which will arise in the future from changing the internal and external environment. Correct risk identification ensures risk management effectiveness (Tcankova, 2002).

4. Risk analysis

Risk analysis is concerned with assessing the potential impact of exposure and likelihood of the particular outcome actually occurring. The impact of exposure should be considered under the elements of time, quality, benefit and resource. This step determines the probability and consequences of a negative impact and then estimates the level of risk by combining the probability and consequences (Standards Australia and Standards New Zealand, 2004).

5. Risk evaluation

Before determining the probability, it is essential to consider risk tolerance. The organizations will consider “risk appetite” (the amount of risk they are willing to take) and decide upon acceptable or unacceptable risk. The acceptable level of risk depends upon the degree of voluntaries. Risk evaluation is important for making sense in specific situations and provides adequate material for decision making (Vrijling, Hengel and Houben, 1995). This step is about deciding whether risks are acceptable or need treatment.

6. Risk treatment

Risk treatment involves selecting and implementing one or more options for treating risks. Standards Australia and Standards New Zealand (2004) offer the following options for risk treatment: avoid risk, change the likelihood of occurrence, change the consequences, share risk and retain risk (residual risk may be retained if it is at an acceptable level).

7. Monitoring and review

Monitoring and review is an essential and integral step in the risk management process. Risk needs to be monitored to ensure the changing environment does not alter risk priorities and to ensure the risk management process is effective both in design and in operation. The organization should review at least on an annual basis (Standards Australia and Standards New Zealand, 2004).

The process of risk management illustrates cyclical nature of the process. It should be an integral of management. The next step will describe the critical success factors influence to risk management procedures.

2.2 Critical Success Factors for effective risk management

2.2.1 Critical Success Factors overview

As the starting point, the definition of Critical Success Factors (CSFs) are introduced by Rochart (1979, p.84). He defines Critical Success Factors as “The limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization. They are the few key areas where things must go right for the business to flourish. If results in these areas are not adequate, the organization’s efforts for the periods will be less than desired”. Boynton and Zmud (1984) discuss CSF methodology, define CSFs and review a range of uses of the CSF method in the first part of their article. They regard Critical Success Factors as one of the few things that ensures success for an organization. Critical success factors are maintaining a high performance for an organization’s currently operating activities and its future.

Moreover, Freund (1988) explained the CSFs concept as the most important for overall organizational objectives, mission and strategies. Critical Success Factors which are appropriate to each unit of business and overall organization aim to fulfill the organization’s objectives. A great number of factors are extremely difficult to focus on and therefore only five to ten should be indicated.

The following review of Critical Success Factors will discuss Critical Success Factors for effective risk management. There are a number of papers on Critical Success Factors contributing to risk management. Grabowski and Roberts (1999) examine the problem of risk mitigation and suggest a process designed to support the high level of performance in an organization. They identify the four important factors as:

1. Organizational Structuring and Design
2. Communication
3. Organizational Culture
4. Trust

Galorath (2006) focuses on the importance of risk management, the essence of risk management and assesses the processes to implement risk management. He argues that risk management requires five activities, which are as follows:

1. Top-level management support
2. An integral part of the entire program management structure and processes
3. The participation of everyone involved
4. Cultural imperative
5. A pattern of measurement

Carey (2001) reviews the Turnbull's approach for risk management. He describes the Turnbull report and how to apply this approach in order to manage risk. The approach can be summarized in the nine main issues which are:

1. The importance of sound judgment
2. Identification issues
3. Keeping control of your reputation
4. Assessing the importance of risks
5. Verifying your judgments
6. Changing management
7. Embedding risks
8. Cultural challenges
9. Remuneration issues

Hasanali's paper (2002) is related to management in an organization. This study maintains that the success of knowledge management depends upon many factors. In the point of view of the authors, there are some interesting factors which should be adopted to risk management. We need to identify and examine these factors for our study. Hasanali's critical success factors can be categorized into five categories:

1. Leadership
2. Culture
3. Structure, roles, responsibilities
4. Information technology infrastructure
5. Measurement

NSW Department of State and Regional Development (2005) proposes a practical guide for managing risk which provides a basic understanding of risk management in small businesses. This document helps to implement the risk management process. In the last part of this guide, it is argued that a business needs to adopt risk management because effective risk management is important. Therefore, risk management should include:

1. Ensuring appropriate commitment to risk management
2. Setting clear objectives and guidelines for risk management
3. Allocating adequate resources
4. Training staff appropriately
5. Implementing systems for monitoring and reviewing risks

Different sets of critical success factors have been presented by different authors, as illustrated in table 1.

Table 1: Comparisons between the authors' proposed critical success factors and the other studies.

Critical Success Factor	Grabowski and Roberts (1999)	Daniel Galorath(2006)	Anthony Carey(2001)	Farida Hasanali(2002)	NSW Department of State and Regional Department (2005)
1 Commitment and Support from top management		Top-level management support		Leadership	
2 Communication	Communication		Verifying your judgments		
3 Culture	Organizational Culture			Culture	
4 Organizational Structure	Organizational Structuring and Design		Change management	Structure, roles, and responsibilities	Setting clear objectives and guidelines for risk management
5 Training			Embedding risks-developing of risk training course		Training staff appropriately
6 Information Technology				Information technology infrastructure	
7 Trust	Trust				
8 others		Acknowledgment that risk is reality	The importance of sound judgment	Measurement	Implementing systems for monitoring and reviewing risks.
		Commitment to identify and manage risks	Identification issues		Allocating adequate resources
			Keep control of your reputation		
			Assessing the importance of risks		
			Remuneration issues		

The above table seems to be the most complete model of effective risk management procedures, so it will be examined in this paper. To sum up, the authors propose a more comprehensive model composed of seven factors for effective risk management procedures in financial industries. These are:

Critical Success Factors
1. Commitment and support from top management
2. Communication
3. Culture
4. Organization Structure.
5. Trust
6. Information Technology(IT)
7. Training

Table 2: List of critical success factors

Having proposed the Critical Success Factors for effective risk management procedure, the next section will explain each of them in more detail.

2.2.2 Definitions of Critical Success Factors

a) Factor 1: Commitment and support from top management

Ifinedo (2008) investigates the impact of contingency factors such as top management support, business vision, and external expertise. The results show that top management support influences the success level of the organizational system.

The paper from Zwikael (2008) argues that the high importance of top management support is considered to be among the Critical Success Factors for project management. It is also important to emphasize effective top management support for different project scenarios. Critical top management support includes a broad range of activities in an organization, including developing project procedures that include the initiation stage, training programs, establishing a project management office, support quality management and so on.

Young and Jordan (2008) suggest that “the essence of top management support related to effective decision-making to manage risk and to authorize business process change”. A crucial part of a successful project is top management support, the benefit of which is related to improving decision making in order to manage risk. Top-level management responds to business processes and manages risk. Successful mitigation or bearing of risk is contingent upon commitment and support from top management.

Moreover, commitment and support from top management plays a key role in influencing the success in almost any initiative within an organization (Hasanali, 2002). Top management formulated and decides objectives and strategies for organizational risk management activities, mission and overall objectives (Henriksen and Uhlenfeldt, 2006).

In one study, it is argued that an organization uses risk management to anticipate the probability of a negative impact and that risk management needs top-level management support. Risk management requires the acknowledgement that risk is a reality and the commitment to identify and manage risk (Galorath, 2006).

These concepts refer to the highly needed support and approval from top management for risk management. The essence of commitment and support from top management supports the effective decision-making process in order to manage risk. Commitment and support from top management is important in every kind of management and it is thus an important factor for risk management.

b) Factor 2: Communication

Most organizations accept that good communication is extremely important. Different employees have different views and discussion between them is therefore based on different conclusions. They simply want to get a clear message across and discussion may be an appropriate channel to deliver messages. Other employees may wish that senior management discuss future plans with staff. Internal communication should support business strategy and improve business processes as well as performance (Quirke, 1996).

Communication is an important skill for leaders and top-level management. The effective leader or managers who are good at communication can set clear mutual expectations, objectives and goals. Communication ensures that the team members understand and support not only where the team is now but also what they want to be (Clutterbuck and Hirst, 2002).

Finniston (1975) said that the gathering, storage, delivery and communication of information in the broadest sense is a growing business. There is an ever-increasing need for communication professionals to ensure that employees are appraised of relevant happenings both inside and outside their organization. A good manager must also be an effective communicator and training in communication must play a larger role in managerial training in the future.

Here, communication is another important consideration for effective risk management. Grabowski and Roberts (1999) claim that communication plays an important role in risk mitigation. It provides opportunities for clarification, for making sense of the organization's progress, and for members to discuss how to improve the organization and the impact of using different risk mitigation strategies.

The communication process provides opportunities for members to understand their roles and responsibilities as the structure of the organization changes. In case, the wide range of people from a broad cross-section of the business. There is involved in the risk identification and assessment process and if there are no "taboo" subjects which prevent conventional wisdom within the organization being challenged when necessary. Financial institutions need to consider the concept of verifiability. If a different group of members were making the same decision about the importance of risks, it would come to the same conclusion (Carey, 2001).

c) Factor 3: Culture

The definition of culture has been described in many ways. Geert Hofstede is well-known for culture theory. Hofstede (2001, p.9) defines culture as

“the collective programming of mind that distinguishes the members of one group or category of people from another”.

According to Hofstede’s definition, culture consists of patterns of values, ideas, thoughts and feelings and is transmitted by symbols as factors in shaping behavior. Consequences of beliefs, attitudes and skills affect thoughts, emotions and actions.

Another definition of culture is described by Hasanali (2002): “Culture is the combination of shared history, expectations, unwritten rules, and social customs that compel behaviors. It is the set of underlying beliefs that, while rarely exactly articulated, are always there to influence the perception of actions and communications of all employees”. In any situation where cooperation is important to solve a crisis, culture is the key factor for willingness to learn from mistakes and to exchange best practice within organizations. But a supply chain consists of many different organizations and cultures and so developing any single culture is very difficult. It is not only the one factor which encourages the members to work more but also to work more efficiently.

Mosadeghrad (2006) studies the impact of organizational culture on success in TQM management. Organizational culture has a significant effect upon management success. A collaborative and corporate organizational culture is supported by long-term management, team working, collaboration, open communication, risk-taking and so on. A strategic plan must be established as a guideline for alignment and integrated within a quality culture.

Grabowski and Roberts (1999) suggest that risk management requires the combination of several cultures that make the system into a cohesive whole in which the deep assumptions and espoused values of each of the member organizations can be built around the need for melding a culture of reliability. In particular situations, teamwork can develop some behavior by sharing individual beliefs, conducting meetings and seeking consensus in order for management to succeed.

The importance of culture within effective risk management is that knowledge transference requires individuals to come together to interact, exchange ideas and share knowledge with one another. Moreover, culture creates individuals who are constantly encouraged to generate new ideas, knowledge and solutions.

d) Factor 4: Organizational Structure

Stank, Daugherty and Gustin (1994) believe that organizational structure involves an organization's internal pattern of relationships, authority and communication. Structure is comprised of formal lines of authority and communication and the information as well as data that flow along these lines. Thus, organizational structure defines the lines of authority and communication, serves to allocate tasks and resources and provides a means of coordination. Hunter (2002) supports the idea that organizational structure provides the authority to predetermine the way employees work. Structure and processes of an organization are most effective when their design functions match their environment and have a positive impact upon the organization's strategies.

Therefore, one of the most important aspects for effective risk management is organizational structure. Organizational structure provides the concept, guideline, direction and support to the employees that is conducted by the steering committee. They design and teach employees to share and use a common vocabulary. The employees work as a team in order to prevent a silo mentality and incorporate resistant employees in the process (Hasanali, 2002). NSW Department of State and Regional Development (2005) believes that setting clear objectives and guidelines is necessary for risk management.

The business and financial world is in constant fluctuation. The environmental condition will change and somethings new will develop gradually over time, while others may sweep the market quickly. Organizational structure must be reviewed regularly and adjusted to adapt to changing financial environments. The management's role is to recommend policies for managing risk, the committee's role is to respond to review and approve them, and it is the management's role once more to implement them and report back on their operation (Carey, 2001).

Moreover, Grabowski and Roberts (1999) suggest that risk management is primarily associated with the fluidity of organizational structures. Responding in different ways and responding quickly in the face of changing conditions is a flexible approach.

DeLoach (2004) focuses on enterprise-wide risk management process (EWRM) to manage risks and to create and protect enterprise value. EWRM is built on a well-defined organizational structure. Risk management responsibilities and authorities are assigned to appropriate personnel. They decide what must be done for developing and assessing risk management alternatives and selecting a structural approach to evaluating risk management options. The effectiveness of alternative strategies is balanced within established risk parameters and limits.

e) Factor 5: Training

Today, almost all companies provide some type of training to their employees. Some companies have a very formal process of training while other companies use outside consultants to conduct employee training sessions (Hughey and Mussnug, 1997). Treven (2003) maintains that the training methods used by organizations can be classified into two methods. The first method is on-the-job training which provides one-on-one instruction, coaching, job rotation and an apprenticeship / internship. The second method is off-the-job training which is conducted away from the worksite. It covers a number of techniques, classroom lectures, films, demonstrations, case studies, other simulation exercises and programmed instructions.

The success of the training programme is influenced by the following factors; “(1) The high quality of the training manual, (2) The use of an ongoing mentorship programme during the course. (3) The high degree of interactive learning employed during the programme. (4) The extensive use of self and peer group critiquing skills. (5) The extensive use of problem-based learning strategies throughout the programme. (6) The critical support of highly motivated training staff. (7) The motivation of continuous assessment throughout the course. (8) The educator input delivered in a working, subject-oriented context” (Moss, 1997, p.172).

It is inevitable that the success of an organization depends upon its staff or employees. It is important to ensure that an adequate supply of staff is equipped with the appropriate skills for special departmental or managerial positions. The process of staff development and training should fulfill an organization’s performance. The purpose of training is to improve knowledge, skills and attitudes which in turn increase confidence, motivation and job satisfaction (Fill and Mullins, 1990)

The endless brief, but vital if risk management is to be brought to the organization. A risk manager should set up training sessions through the directorate manager for members of staff and through the risk management team for consultants (Symons, 1995).

Carey (2001) shows that the ability to respond to changing conditions in an organization’s operations relates to a range of activities including the development of risk training courses and the involvement of staff in responding to early warning systems.

NSW Department of State and Regional Development (2005) suggests that effective risk management become a part of good business practice and include training staff appropriately. The main reason for an education and training program is not only to ensure that members are comfortable with the system, but also to increase their expertise and knowledge. Training not only uses the new system, but also new processes and understands the integration within the system – how the work of one employee influences the work of others.

f) Factor 6: Information Technology (IT)

Halliday, Badenhorst and Solms (1996, p.22) define Information Technology (IT) as consisting of two components: “(1) the information systems (including related information) on which the critical business functions and processes depend (2) the computer technologies (hardware and software) which support the processing, storage and distribution of the company’s data and information”. It provides information about being the connector between one human to information and one human to another one (Wong, 2005).

Organizations need to consider IT as an important factor in the face of increasing competition, higher performance levels, globalization, and liberalization. IT plays a key role in achieving an organization’s objectives. IT relates to all aspects of the business processes, including access to a shared infrastructure consisting of knowledge, human assets, core competencies, resource allocation, performance management, project tasking and communication support (Mutsaers, Zee and Giertz, 1998).

Shin (1999) focuses on using IT to redesign business processes and to improve business profitability and productivity. IT relates to better information processing, sharing, fast responsiveness, and better coordination between separate units of an organization and across organizations. Moreover, IT is associated with reducing costs such as the cost of documentation, decision information and cost effective monitoring or performance evaluation device.

Xenomorph (2007) argues that “Effective risk management is impossible without effective information technology” and describes the IT architecture necessary for this.

Additionally, an organization is on such a large scale that it would be difficult for members to communicate and share information without an information technology infrastructure (Hasanali, 2002). Information technology can enable prompt searches, the access of and retrieval of data, and support communication in an organization.

Rolland (2008) suggests using IT to drive effective risk management. IT can create an important link between risk management and corporate performance. IT provides data security by employee level, limiting a user's access by time, line of business, business activity and individual risk. IT tools collect data used in the past so companies can learn through experience and avoid repeating the same mistakes. The effective risk management information make more valuable for decision making. Therefore, Information Technology (IT) is another imperative factor for successful risk management.

g) Factor 7: Trust

Trust, according to Mayer, Davis and Schoorman (1995, p.711) is “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party. This definition of trust is applicable to a relationship with another identifiable party who is perceived to act and react with volition toward the trustor”. The authors study trust within an organization and develop a model of dyadic trust in an organizational context. Trust involves two parties: the trustor and the trustee.

Over the last several years, trust has become a central subject of study in organizations. Trust is important because of the strong desire to understand how to create effective cooperation within organizations. Trust is therefore key because it enables cooperation. The success of an organization is related to its ability to manage effective cooperation (Tyler, 2003). Pinto, Slevin and English (2008) support the idea that trust is important for project performance. Trust, they argue, enhances the strength of working relationships, solidifies partnering roles, and increases the willingness of various project stakeholders to cooperate. Trust comes from responses regarding the sharing of materials, information, resources and displaying good intent behavior (Erden, 2003).

Risk management needs cooperation and teamwork encourages success. Trust among an organization’s members is an important prerequisite to changing those related to alliances, thus mitigating risk, as organizations are unwilling to adopt alliance-like organizational structures that make them vulnerable to the fluctuation of the environment (McAllister, 1995).

Grabowski and Roberts (1999) suggest that trust permits an organization’s members to focus on their mission, unfettered by doubts about other members’ roles, responsibilities and resources, and that with trust, synergistic efforts in an inter-organization’s mission are possible. Risk management engages in activities that encourage share commitment. Thus, one of the means of driving efficient risk management is trust.

Base on the review of the literature, Critical Success Factors are informed for risk management procedures. Critical Success Factors are suggested by different previous studies. The mostly studies about risk management are conducted for projects in general. This study need consideration all factor in perspective of financial industries for risk management. The degree of how importance in each factors need to evaluation. After the seven critical success factors are produced the next stage is evaluation. The seven critical success factors also need to be tested how the important. The list of seven critical success factors serves as a proposition which we will subsequently test in our empirical study. Therefore, the hypotheses are the seven critical success factors are important to effective risk management procedures in financial industries as the following table 3.

Hypotheses	Meaning
H1	Commitment and support from top management is an important factor for risk management procedures.
H2	Communication is an important factor for risk management procedures.
H3	Culture is an important factor for risk management procedures.
H4	Organizational Structure is an important factor for risk management procedures.
H5	Training is an important factor for risk management procedures.
H6	Informational Technology is an important factor for risk management procedures.
H7	Trust is an important factor for risk management procedures.

Table 3: A set of hypotheses in this study

At the end the result of testing will show if the hypotheses were confirmed or rejected which will contribute to the conclusions of this study.

Chapter 3: Research Methodology

This chapter describes the research methodology used in this study. Firstly, the choice of study, research philosophy, research purpose, research approach and research strategy are presented. Subsequently, the data collection method that provides information on how to collect sources is explained. Finally, the validity and reliability of our research is explained.

3.1 Choice of Study

It was of course not easy to decide which subject we were going to research due to the fact that we are studying different masters programs, namely Management and Finance. We thought the subject should be based on our previous knowledge and our experience from working in financial institutions. Moreover, due to the current financial crisis, we found risk management to be an interesting subject. We found that many surveys and studies showed that effective risk management is required (Al-Tamimi, and Al-Mazrooei, 2007). At the present day, risk management has become an important part of business. The next step for our idea was how to increase effective risk management. Our investigation found that there are many critical success factors that influence risk management effectiveness. A set of critical success factors should be created for particularly successful risk management.

Risk management is more important in the financial sector than in other business areas because the financial industry is facing a large number of risks in a volatile environment (Carey, 2001). Therefore, we decided to study risk management in the financial industry in order to find out the critical success factors for effective risk management. We believe that our study could be beneficial for a wide range of businesses and the education sector.

3.2 Research Philosophy

The two positions of ontology are objectivism and constructionism. This research selects constructionism as its ontological position. Constructionism asserts that social phenomena and their meanings are continually being constructed by social actors (Bryman and Bell, 2003, pp.23).

According to Bryman and Bell (2003, p.16), “An epistemological issue concerns the question of what is considered as adequate knowledge in a discipline”. There are three epistemological positions: positivism, realism and interpretivism. In this research, positivism is adopted as the epistemological position. Positivism entails an element of deductivism, which maintains that

theories generate hypotheses that aim at data collection. Data collection will be developed in the conclusion.

3.3 Research Approach

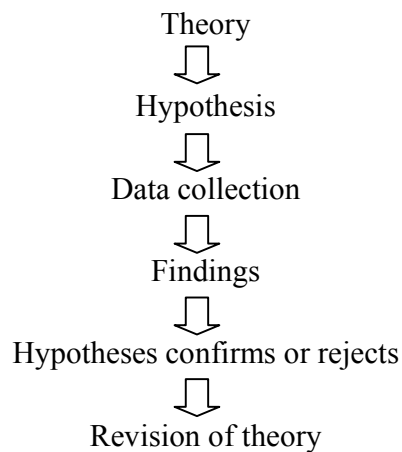
Business research approaches can be categorized into two approaches: deductive and inductive.

The deductive approach is a top-down approach, which means that one or more theories produce a hypothesis and aim at data collection. This hypothesis is then tested and will either be confirmed or rejected. Finally, the theory itself will be confirmed or revised (Bryman and Bell, 2003).

The inductive approach is the opposite of the deductive approach in that it is a bottom-up approach. The researcher therefore infers the implication of his or her findings. Theory is the outcome of this approach (Bryman and Bell, 2003).

We chose to use the deductive approach because it is the most suitable for this study. In the deductive approach, Bryman and Bell (2003, p.11) describe the process of deduction applied to the study shown in the exhibit below:

Figure 2: The process of deduction



In this study we will start with the theory. In the literature section, we review a set of critical success factors based upon existing theories and published articles. This step produces a set of critical success factors as a hypothesis. We subsequently describe the way in which we will collect our data, namely through questionnaires or interviews. The results of our data collection will then be analyzed. Each of the critical success factors is evaluated and will be either confirmed or rejected. Finally, we will confirm or revise our theory.

3.4 Research Strategy

Business research strategy can be divided into two methods: qualitative and quantitative.

Qualitative methods are not concerned with numbers – instead, they emphasize words rather than quantification in the collection and analysis of data. A common form of qualitative research tool is an interview (Bryman and Bell, 2003).

Quantitative methods entail the collection of numeric data, hence the results will often be presented in numbers. Usually, the data is collected by use of a questionnaire (Bryman and Bell, 2003).

In conjunction with the deductive research approach, the research strategy to be used will be quantitative. This study of motivation to work is results from questionnaire with a number of respondents. Therefore, this method is able to generalize the findings beyond this study.

3.5 Data Collection Method

In order to carry out an academic investigation, it is necessary to decide how to collect the data. There are two kinds of data: primary and secondary. A self-completion questionnaire will be used to collect primary data.

Self-completion questionnaire

A self-completion questionnaire is one of the most cost-effective ways of collecting data (Kent, 2007). The questionnaire is designed from a set of questions whose purpose is to gather the particular data. A questionnaire is essential for this research in order to evaluate each of the critical success factors.

Sample selection

When conducting a survey, it is important to consider the selection of samples. In this study, a sample will be considered based upon its country of origin, which sector and which company it deals with, and which position should be addressed. We decided to collect data from financial industries in Thailand. Financial institutions include banks, the stock exchange, insurance, stock securities, asset management and so on. Due to the fact that top-level management is directly responsible for risk management, the target groups are the range of positions from supervisors to board of directors in financial institutions in Thailand will be our sample as non-probability sampling which is judgmental sampling.

It seems difficult to acquire details about the target group. Fortunately, we have both worked in financial institutions such as the stock exchange and a securities broker. We tried to contact our colleague for gather database. And then we collected and selected database that suitable with our target. Within our database, financial institutions are categories into five groups: (1) Asset management (2) Banking (3) Consultancy (4) Insurance (5) Securities broker. The number of samples is shown below:

Total of e-mail lists	161
Less: Bounced	18
Less: Delivery failure	<u>32</u>
A total of potential samples	111

From a total of 111 potential samples, the response rate is 30.6 % of potential samples.

Design of questionnaire

The questionnaire contains twenty-five questions and is divided into the following segments:

1. General information
2. Critical success factors for effective risk management
 - a. Commitment and support from top management
 - b. Communication
 - c. Culture
 - d. Organization Structure
 - e. Information technology
 - f. Training
 - g. Trust
3. Critical success factors ranking

The first part consists of general information that identifies the background of the respondent. The second part investigates each of the critical success factors. There are a variety of questions such as those requiring one answer or those in which one can rank factors. The last part is a ranking scale and precoding for a set of critical success factors. A sample questionnaire is showed in Appendix.1.

Survey procedure

There are many ways to send a questionnaire to sample groups. In this case, we decided to send it online, which is a low cost and fast way to reach the target. We decided to use www.surveymonkey.com, an easy to use website which provides a variety of functions. After the questionnaire was formulated, we initially sent it to a pilot group of approximately 5 persons to

ensure that the questionnaire was understandable. The questionnaire was then distributed to sample groups on 28th April 2009 and again on 5th May 2009. The e-mail provides the invitation that introduces the purpose and topic of the questionnaire. The receiver will answer the question by clicking on the hyperlink, which will open a new window containing our questionnaire. The respondents are allowed to answer by clicking or typing text. When the respondent is finished, each of the answers will be automatically sent to our webpage where we can collect the responses immediately. The summary of responses will be the subject of analysis in chapter 4.

3.6 Data analysis

This study use quantitative method to collect data. The basic techniques for analyzing quantitative data will be examined. There are different kinds of analysis that depend on the relationship between variables (1) Univariate analysis (2) Bivariate analysis and (3) Multivariate analysis (Bryman and Bell, 2003). This study refers to univariate analysis that analysis of one variable at a one time. This kind of analysis provides a frequency tables that report the percentage of each of categories and diagram that easy to interpret and understand. All of number and percentage are produced with SPSS for windows. And crosstab and chi square tests will be an analysis tools for testing our hypothesis.

3.7 Reliability and Validity

Reliability is concerned with the question of whether or not a result is stable (Bryman and Bell, 2007). The idea of reliability is important for measuring. Our method is carefully explained throughout this research. The sample selection is based upon non-probability. The people are selected because of their positions of authority and responsibility in this area. The respondents are free to answer the questionnaire without undue stress which would have negative effects upon the reliability of this study. This study is possible to reproduce with consistent results.

According to the questionnaires were collected from small samples of respondents. In order to improve the reliability of questionnaire, we used Cronbach' alpha tested the reliability. It is commonly used measure of internal consistency reliability is Cronbach's Alpha. "The Cronbach's Alpha provides a coefficient of inter-item correlations that is the correlation of each item with the sum of all the other items." (Cohen, Manion, and Morrison, 2007, p.506). Cronbach' alpha quantified this reliability by proposing a coefficient which theoretically ranges from 0 to 1. If alpha (α) is near 0 then the quantified answers are no reliable, and if alpha (α) is close to 1 the answers are very reliable. (Cronbach,L. J., (1951)). The reliability level is acceptable at 0.6 or above. In this research tested Cronbach alpha through the Cronbach alpha value showed in Appendix 2. And the number of Cronbach's Alpha was 0.615 that is acceptable level therefore this research is reliable.

Validity is concerned with “the integrity of the conclusions that are generated from a piece of research” (Bryman and Bell, 2007, p.41). The process of survey, the questionnaire was sent to the pilot to ensure the questionnaire is understandable and acceptable. And the empirical data was analyzed with SPSS for windows which is possibly the most widely used computer software for the analysis of quantitative data. As a result, we thought that will be supposed to our study. Therefore, this research can be safely said to be highly valid.

This chapter shows the overall methodologies were used in this study. Begin with the choice of study that gave the reason why the authors are interested in this subject, research philosophy that constructionism as its ontological position and positivism is adopted as the epistemological position, research approach which is deductive that related to quantitative methods as research strategy. Followed by the data collection method presented the process to collect data and the data analysis. Finally, how the reliability and validity results in this study. The next chapter will be present the empirical data from the data collection methods.

Chapter 4: Empirical findings

In this chapter, the empirical data collected from our self-completion questionnaire will be presented. Firstly, we will present the percentage of each answer from the respondents and summarize the importance of each factor. Then we will examine some questions with the crosstab and chi square tests. Finally, we will rank the critical success factors.

4.1 The results of general information

We targeted top-level positions in financial institutions in Thailand with this survey. We received responses from 34 respondents in a range of financial institutions. The results of this survey were processed with the SPSS program. Firstly, we will show the demographic results in order to demonstrate the general information of our sample.

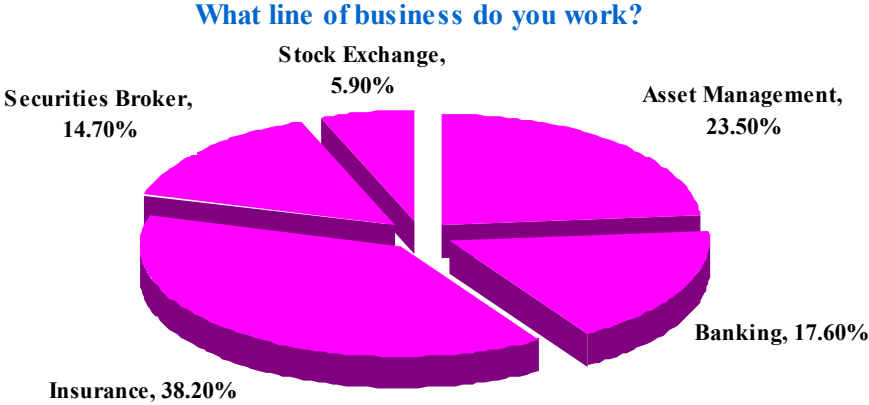


Figure 3: Line of business

The figure above shows a percentage breakdown of the respondents' line of business. Most of the respondents, i.e. 38.20%, work in the insurance sector. We can see the amount of respondents working in asset management (23%), banking (17.60%), securities broker (14.70%) and stock exchange (5.90%). the average number of respondents in each line of business was practical and sufficient for analysis.

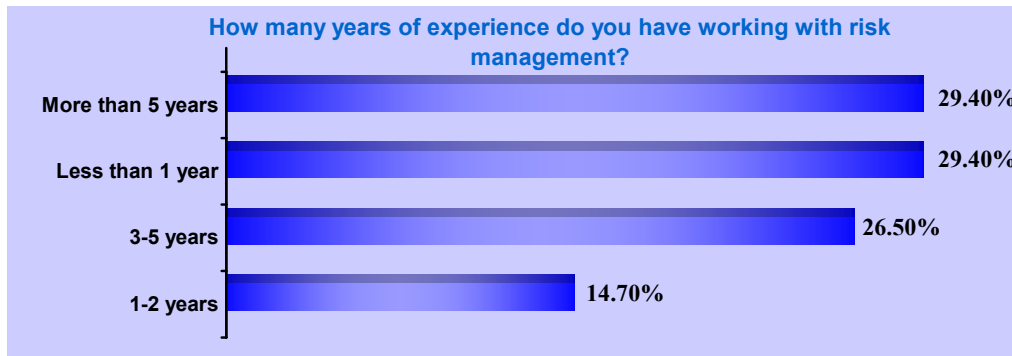


Figure 4: Experience of respondents

The figure above shows the percentage of the years of experience the respondents had working with risk management. We asked this question because we wanted to know how experienced the respondents were in terms of risk management. In the results, we notice that 29.40% have experience working with risk management more than 5 years. Whereas, the respondents who have working experience in risk management less than 1 year was 29.40%, 3 to 5 years was 26.50% and 1 to 2 years was 14.70%.



Figure 5: The expectation from risk management

The last question of the general information part involved asking the respondents to indicate their expectations of risk management in their organization. We asked this in order to find out how important the respondents think risk management is. The results show that most of the respondents expect risk management to reduce financial losses (91.20%). Additionally, 82.40% of the respondents expect effective risk management to improve decision making and 38.20% expect effective risk management to improve communication with the stakeholders and improve resource allocation.

4.2 The results of each critical success factors

In this part, we will present the results of each of the critical success factors. In part 2 of the self-completion questionnaire, we divided the questions into seven factors, namely commitment from top management, communication, organization structure, culture, IT, training and trust. We did this because we wanted to know how important each of the factors are for the respondents and how an organization adopts each factor.

4.2.1 Commitment and support from top management



Figure 6: The percentage of who has the authority to establish risk management in organization

In the beginning, we asked a question about commitment and support from top management. In the figure above, we asked the respondents to identify who has the authority to establish risk management in their organization. The results of this question were closely expected because we assumed the top-level should have the authority to establish risk management. As we can see in the bar chart, the majority of the respondents (41.20%) specify that the board and committee have the authority to establish risk management. Next was the executive management team (35.30%), Chief Executive Officer (CEO) with 14.70% and Chief Financial Officer (CFO), internal auditor and staff with 2.90%.



Figure 7: The percentage of the processes to support risk management policy

In figure 7, we asked the respondents about how their organization supports risk management policy. In this question, the respondent was able to choose more than one answer. The results of this question were that most of the respondents' organizations set up risk management teams (67.60%) while 55.90% clearly allocate risk management responsibilities, 52.90% regularly revise risk management plans, 41.20% strictly obey risk management policy, 32.40% listen to problems from employees, and 29.40% allocate resources.

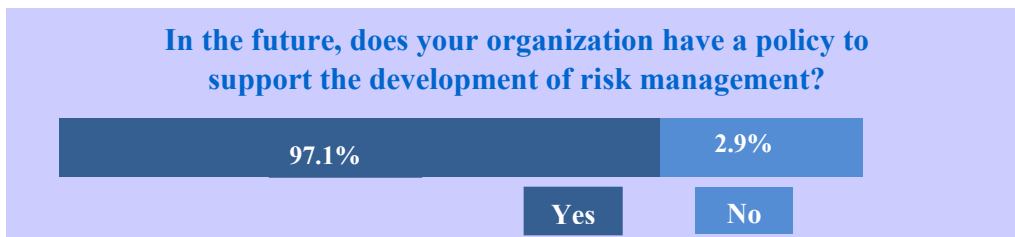


Figure 8: The percentage of organizations which have a policy to support the development of risk management

In figure 8, we used a yes/no question to ask the respondents about future risk management policy. The results show that the amount of respondents who chose yes was 97.10%, which means that top management is willing to support the development of future risk management policy.

4.2.2 Communication

The respondents are asked the frequency of using method in communication. Being, 1 = Almost never, 2 = Sometimes, 3 = Fairly often, 4 = Very Often and 5 = Always

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Bulletin board	33	2.6061	1.08799	.18939
E-mail	33	4.5758	.79177	.13783
Face-to-face	33	3.5455	1.14812	.19986
Meeting	34	3.8529	.85749	.14706
Memo/Note/Fax	33	2.9697	1.13150	.19697
Telephone	33	3.6667	1.16369	.20257

Table 4: Mean of using each method in communication

The table above shows the statistics of the number of respondents, mean and standard deviation of agreement in each statement. We begin with the mean value of using a bulletin board, which was 2.6, email was 4.58, face to face was 3.54, meeting was 3.85, memo/note/fax was 2.97 and telephone was 3.67. We set a point of 3 is an acceptable level. If the mean value more than 3, it must be important. Therefore, E-mail, Face-to-face, Meeting, and Telephone are favorable methods in communication whereas Bulletin board and Memo/Note/Fax are unfavorable methods in communication.



Figure 9: The percentage of the processes of communicate to reduce risk

In figure 9, we would like to know how the organizations effectively communicate in order to reduce risk. In this question, the respondents could choose more than one answer. The results show that the most common way of communicating effectively to reduce risk is developing understanding between management team and employee, with 73.50% of the respondents picking this answer. It means that most of the respondents think that developing this understanding is a first priority for organizations. The next results were equal between creating clear and trustworthy information and regularly communicating among management, both with 67.60%. Creating and maintaining a clear communication followed with 58.80%. The lowest ranking was fast and sharp communication between management team and stakeholder, with 47.10%. This means that fast and sharp communication between management team and stakeholder is not a common way of communicating to reduce risk and is outranked by creating understandable and clear information.

4.2.3 Culture

The respondents are asked to indicate the degree of agreement with the following being, 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Cul1.1	33	4.0606	.74747	.13012
Cul1.2	33	4.0909	.76500	.13317
Cul1.3	34	3.5882	.89163	.15291
Cul1.4	33	3.5758	.86712	.15095
Cul1.5	33	3.6667	.69222	.12050

Table 5: The mean of degree of agreement with statement about culture.

The table above shows the statistics of the number of respondents, mean and standard deviation of agreement with each statement. As you can see in the table, the mean of the first statement (collaboration within an organization comes from a strong culture) was 4.06. The mean of the following statement, namely that communication techniques and information management are the most important things with which organizations should be involved, was 4.09, your existing organizational culture helps you know how to develop risk management strategies was 3.59, your organization does not hesitate to change the old culture for its development of risk management was 3.58 and changing in culture is not resisted here if they are good for the organization was 3.67. We set a point of 4 is an acceptable level. If the mean value more than 4, it must be important. Therefore, the respondent agreed with following statement: (1) collaboration within an organization comes from a strong culture and communication techniques and (2) information management are the most important things with which organizations should be involved.

4.2.4 Organizational Structure

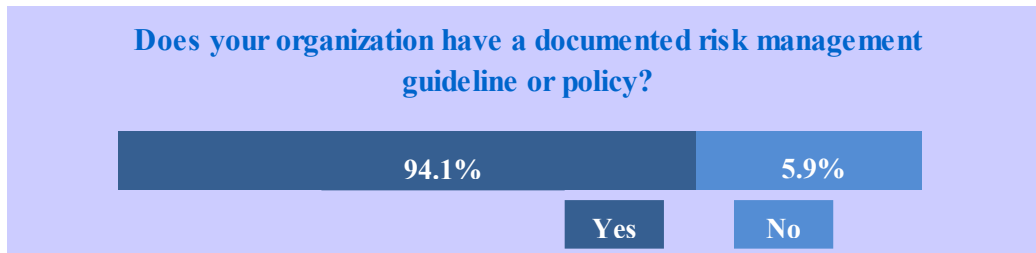


Figure 10: The percentage of the yes/no question that we asked regarding if the respondents' organizations have a documented risk management guideline or policy.

In figure 10, we used a yes/no question to ask the respondents if their organizations have a documented risk management guideline or policy. 94.1% of respondent replied 'Yes' and 5.9% replied 'No'.



Figure 11: The percentage of guidelines that support the goals and objectives of risk management

Figure 11 shows that 97.1% of respondents have guidelines that support the goals and objectives of risk management. But 2.9% do not have a guideline to support the goals and objectives of risk management.

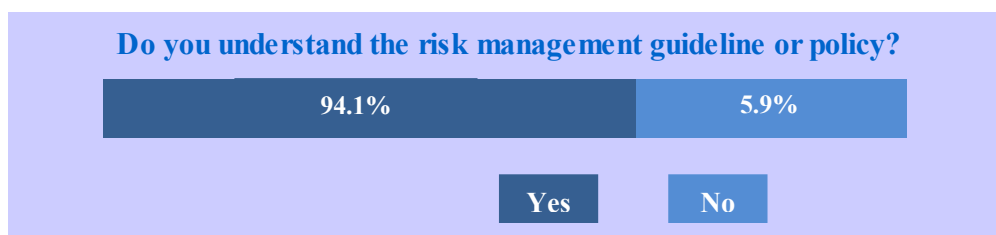


Figure 12: The percentage of yes/no question that we asked about do you understand the risk management guideline or policy.

In figure 12, showed 94.1% of respondents understood the risk management guideline or policy. But 5.9% did not understand the risk management guideline or policy.



Figure 13: The percentage of how often the respondents’ organizations change its guidelines or policies to manage risk

In figure 13, most of the respondents (82.40%) replied that their organization changes their guidelines or policies to manage risks once per year. 11.80% of the respondents replied that their organizations changed their guidelines or policies one every 2 years and changing once in more than 2 years had 5.90%. That means that most of the organizations think they should change their guidelines or policies to manage risks once per year.

4.2.5 Information Technology

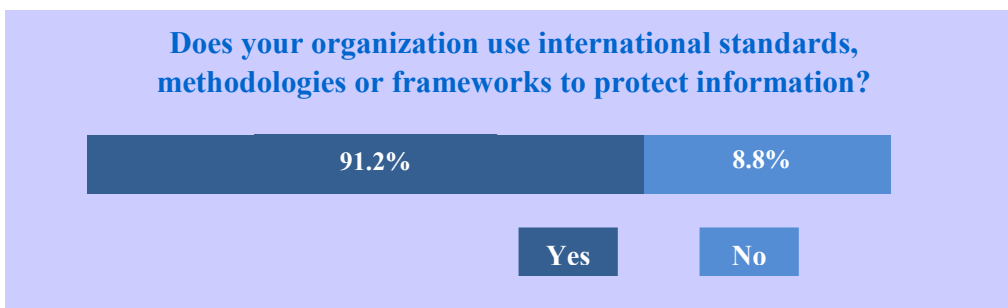


Figure 14: The percentage of organization which use international standards, methodologies or frameworks to protect information

In figure 14, 91.2% of respondents use international standards, methodologies or frameworks to protect information. That means their organizations use similar standard or methodologies with other countries for protected IT risk. But some of the respondents (8.8%) did not use international standards, methodologies or frameworks to protect information.

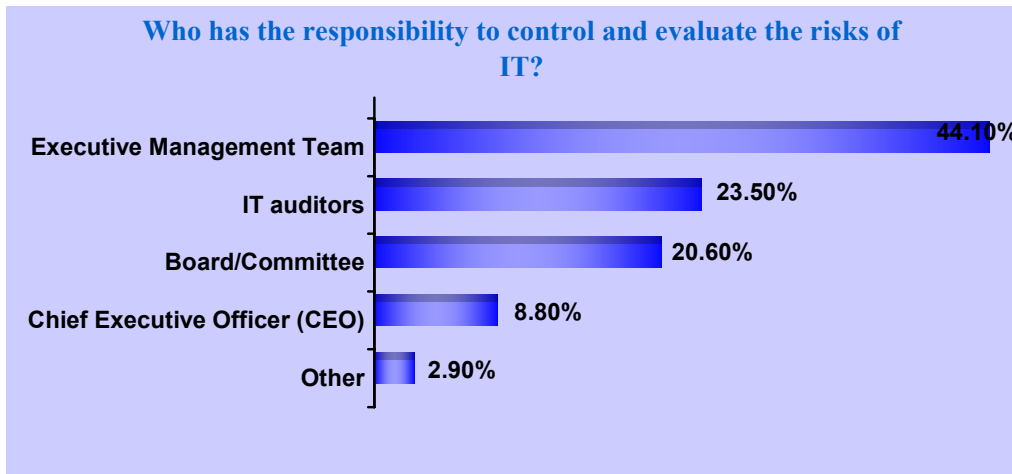


Figure 15: The percentage of who has the responsibility to control and evaluate the risks of IT

The question above asked the respondents who has the responsibility to control and evaluate the risks of IT. 44.10% was executive management team, 23.50% was IT auditors, 20.60% was Board or committee, 8.80% was Chief Executive officer (CEO) and 2.90% was other. This means that in the big picture, top-level are still responsible for controlling and evaluating risk management in organizations

4.2.6 Training



Figure 16: The percentage of how often organizations provide risk management training courses

In figure 16, we asked the respondents about the frequency of risk management training in their organizations. The results show that most of the respondents' organizations (41.20%) have a risk management training course less than one time per year. 23.50% have a risk management training course one time per year and 2 times per year, more than 2 times per year and never had equal percentages, namely 11.89%.

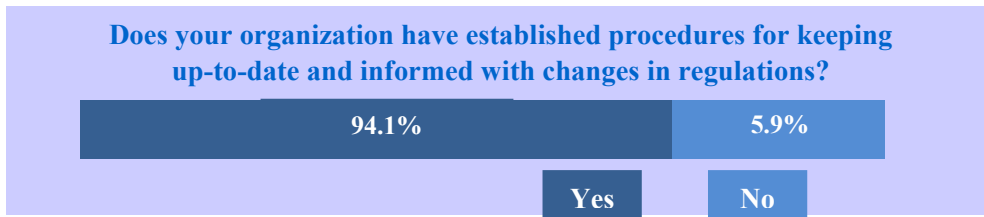


Figure 17: The percentage of organizations which have established procedures for keeping up-to-date and informed with changes in regulations

After that we asked a yes or no question about training. The results show that 17 show that 94.10% of the respondents answered ‘Yes’, their organization does have established procedures for keeping up-to-date and informed with changes in regulations. But 5.90% do not.

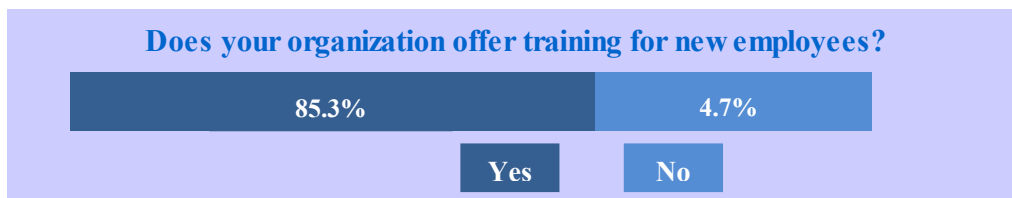


Figure 18: The percentage of how many organizations offer training for new employees

We also asked yes or no question about training courses for new employees. The results show that 85.3% have a training course for new employees but 4.70% do not. That mean most of the respondents’ organizations think training new employees is important.

4.2.7 Trust

The respondents are asked to indicate the degree of agreement with the following statements by give a rate, being 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly disagree.

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
colleagues	34	3.9118	.71213	.12213
superiors	34	4.0000	.65134	.11170
subordinates	34	3.9412	.48873	.08382
opinion	34	4.0882	.45177	.07748

Table 6: The mean of degree of agreement with statement about trust.

The results of the table 6 show the average scores of agreement with each statement. The mean score of I can trust most of my colleagues was 3.9118, I can trust my superiors was 4.00, I can trust my subordinates 3.9412 and I feel confident to give my opinions and ideas were 4.0882. We set a point of 4 is an acceptable level. If the mean value more than 4, it must be important. Therefore, the respondent agreed that they trust most of superiors and feel confident to give the opinions and ideas.

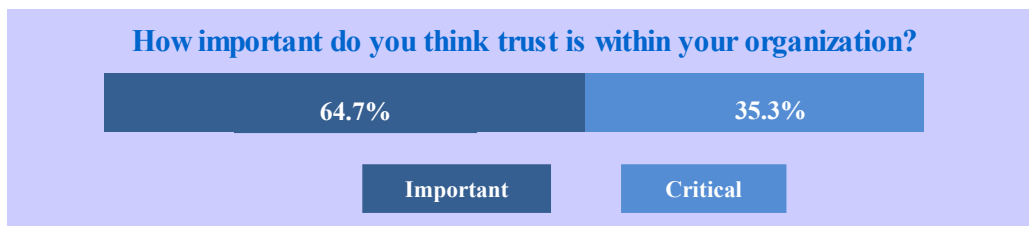


Figure 19: The percentage of how important trust is within organizations

In figure 19, the results show that 64.70% of the respondents think trust is an important factor in their organization while 35.30% think it to be critical.

4.3 Average scores of importance of each critical success factors

The seven of critical success factors are tested in this questionnaire. The respondents are asked to indicate the importance of each factor by give a rate, being 1 = Very Unimportant, 2 = Unimportant, 3 = Neutral, 4 = Important and 5 = Very Important.

For examine the relationship between the group of business and level of importance to each factors, we used a chi-square test for independence to determine whether the line of business is related to rate importance of each critical success factors.

Rating Scale	Line of business					X ² , df	p-value
	Asset Management n(%)	Banking n(%)	Insurance n(%)	Securities Broker n(%)	Stock Exchange n(%)		
1. Top						1.86, 4	0.81
-Important	4(33.3%)	2(16.7%)	3(25%)	2(16.7%)	1(8.3%)		
-Very Important	4(18.2%)	4(18.2%)	10(45.5%)	3(13.6%)	1(4.5%)		
2. Comm						4.03, 4	0.41
-Important	3(42.9%)	2(28.6%)	2(28.6%)	0	0		
-Very Important	5(18.5%)	4(14.8%)	11(40.7%)	5(18.5%)	2(7.4%)		
3. Culture						13.26, 8	0.10
-Neutral	1(20%)	3(60%)	0	0	1(20%)		
-Important	5(21.7%)	2(8.7%)	10(43.5%)	5(21.7%)	1(4.3%)		
-Very Important	2(33.3%)	1(16.6%)	3(50%)	0	0		
4. Structure						13.15, 12	0.34
Unimportant	1(100%)	0	0	0	0		
-Neutral	0	2(40%)	2(40%)	0	1(20%)		
-Important	6(28.6%)	4(19%)	7(33.3%)	4(19%)	0		
-Very Important	1(14.3%)	0	4(57.1%)	1(14.3%)	1(14.3%)		
5. IT						5.75, 8	0.74
-Neutral	1(25%)	2(50%)	1(25%)	0	0		
-Important	6(26.1%)	3(13%)	9(39.1%)	3(13%)	2(8.7%)		
-Very Important	1(14.3%)	1(14.3%)	3(42.9%)	2(28.6%)	0		
6. Training						13.87, 12	0.30
Unimportant	1(100%)	0	0	0	0		

-Neutral	1(11.1%)	3(33.3%)	3(33.3%)	1(11.1%)	1(11.1%)		
-Important	6(33.3%)	2(11.1%)	5(27.8%)	4(22.2%)	1(5.6%)		
-Very Important	0	1(16.7%)	5(83.3%)	0	0		
7. Trust						11.89, 8	0.14
-Neutral	0	0	0	1	0		
-Important	5(27.8%)	4(22.2%)	4(22.2%)	3(16.7%)	2(11.1%)		
-Very Important	3(20%)	2(13.3%)	9(60%)	1(6.7%)	0		

Table 7: The results from a crosstab and chi square

The table 7 summarizes the results from a crosstab analysis and chi square tests that the statistics are shown in Appendix 3. Conduct the test using the p-value reported in the above table. The alpha (α) is indicated the specified levels of significance at 0.05. If the p-value more than 0.05, the line of business and rating scale are independence. The SPSS output shows below

- Commitment and support from top management, chi square score was 1.86 and p-value was 0.81 that more than 0.05. It means the line of business and rate importance of Commitment and support from top management are independence.
- Communication had chi square score at 4.03 and p-value at 0.41 that more than 0.05. Therefore, there is not significant relationship between the level of how importance of Communication and the line of business.
- Culture showed the chi square value at 13.26 and p-value equal 0.10 that more than 0.05. It concludes that the line of business and rate importance of Culture is not associated with the line of business.
- Organization Structure, chi square was 13.15 and p-value was 0.34 that more than alpha. It means the line of business and rate importance of Organization Structure are not related.
- Information technology, chi square value at 5.75 and p-value at 0.74 that more than significant level. Therefore, the line of business and rate importance of Information technology are independence.
- Training showed the chi square value at 13.87 and p-value equal 0.30 that more than 0.05. It concludes that the line of business is not related to level of importance of Training.
- Trust, chi square score was 11.89 and p-value was 0.14 that more than alpha ($\alpha=0.05$). It means the line of business and degree of importance of Trust are independence.

Therefore, the line of business which is Asset Management, Banking, Insurance, Securities Broker and Stock Exchange is not related to the rate importance of seven critical success factors.

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Top	34	4.6471	.48507	.08319
Com	34	4.7941	.41043	.07039
Culture	34	4.0294	.57658	.09888
Structure	34	4.0000	.69631	.11942
IT	34	4.0882	.57036	.09782
Training	34	3.8529	.74396	.12759
Trust	34	4.4118	.55692	.09551

Table 8: The mean of scores of important of each critical success factors.

The results of the table 8 show the average scores of importance of each of the factors. The mean score of Commitment and support from top management was 4.6471, communication was 4.7941, Culture was 4.0294, Organization Structure was 4.0, Information technology was 4.0882, Training was 3.8529 and Trust was 4.4118. If the mean value more than 3.5, it must be confirmed that each factors are important for risk management. Therefore, the results showed that the seven critical success factors are important for risk management that confirmed by respondents and mathematical statistics following table 9.

Hypotheses	Meaning	Result
H1	Commitment and support from top management is an important factor for risk management procedures.	Confirmed
H2	Communication is an important factor for risk management procedures.	Confirmed
H3	Culture is an important factor for risk management procedures.	Confirmed
H4	Organizational Structure is an important factor for risk management procedures.	Confirmed
H5	Training is an important factor for risk management procedures.	Confirmed
H6	Informational Technology is an important factor for risk management procedures.	Confirmed
H7	Trust is an important factor for risk management procedures.	Confirmed

Table 9: The result of testing hypotheses

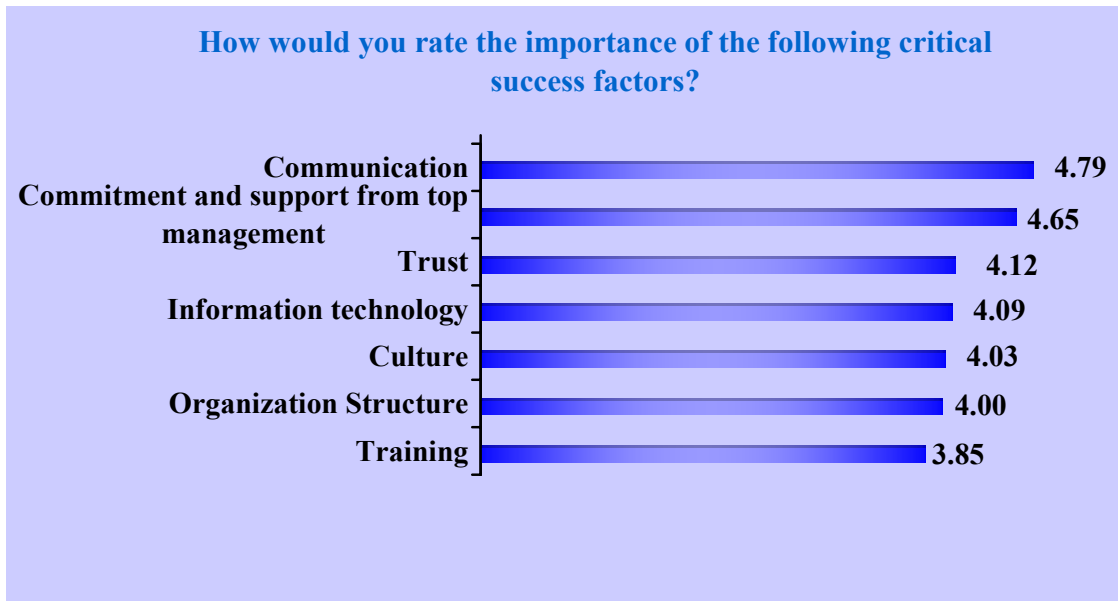


Figure 20: Average scores of importance of each critical success factors

The respondents confirmed that all of the critical success factors are important. The importance of the factors can be divided into three groups. The first group has the most critical factors: Commitment and support from top management and Culture. The second group is the medium critical factors which are: Trust, Information Technology, Culture and Original Structure. The last group is composed of the less critical factor of Training.

4.4 The ranking of 7 critical success factors

The respondents are also asked to rank the following critical success factors according to the extent to which they challenge effective risk management, with “1” being the most challenging and “7” being the least challenging. The following table 13 is a summary of the collected data.

Statistics								
		Top	Com	Cul	Structure	IT	Training	Trust
N	Valid	34	34	34	34	34	34	34
	Missing	0	0	0	0	0	0	0
Sum		67.00	86.00	162.00	160.00	139.00	180.00	158.00

Table 10: The sum of ranking scores.

The above table shows the sum of scores from each of the factors, Commitment and support from top management equal 67, communication equal 86, Culture equal 162, Organization Structure equal 160, Information technology equal 139, Training equal 180 and Trust equal 158. From these numbers, the seven critical success factors were compared and rearranged from the most challenging to the least challenging. The ranking of critical success factors is presented in the following table 14.

Critical Success Factors	Rank
Commitment and support from top management	1
Communication	2
Information Technology(IT)	3
Trust	4
Organization Structure	5
Culture	6
Training	7

Table 11: The rank result of CSFs from respondents

Chapter 5: Discussion

This chapter analyzes and discusses each of the factors found through our research with the aim of answering our research question and fulfilling the mission of our research. In this chapter, we present our ranking of Critical Success Factors and introduce other factors that were recommended by our respondents.

5.1 Risk management procedures

Risk management has become a main area of development for financial institutions. Most of the organizations emphasized that effective risk management procedures are important. They expect effective risk management to improve decision-making, reduce financial losses and increase profit from investment the last one is suggestion from respondent. The objective of risk management is to maximize the potential of success and minimize the probability of future losses (Anderson and Terp, 2006). In addition, the other expectations are to improve resource allocation and communication with stakeholders. Moreover, the respondents suggested that effective risk management can decrease regulatory and compliance risk.

5.2 Critical Success Factors

Now that the critical success factors have been produced, their importance needs to be discussed. In table 11 from chapter 4, our results show a ranking of critical success factors. The rank of critical success factors is:

No.1 Commitment and support from top management

The surveys show that respondents identified commitment and support from top management as the most important. Top-level management responds to business processes and manages risk. Most of the organizations believe that it is the responsibility of the Board of Directors or Committee and Executive Management team to establish risk management, while other organizations believe it is the responsibility of the Chief Executive Officer. Top management decides the objectives and strategies for organizational risk management activities, mission and overall objectives

The respondents indicated that there are many ways in which top management can support risk management policy as showed in the figure 7. They set up a particular risk management teams, regularly revision of risk management plans, clear to allocate risk management responsibilities, strictly obey in risk management policy, listen a problems from employees and allocate

appropriate resources. Most of the organizations have a policy to support the development of risk management. The benefit of top management support is effective decision-making to manage risks. This is one of the expectations from the respondents.

No.2 Communication

Most respondents accept that communication is an extremely important factor. According to the scores from the survey in figure 23, there show the degree of importance between commitment and support from top management and communication is a small different scores. Due to the fact, communication is an important skill for leaders and top-level management. The effective leaders or managers who are good at communication can set clearly mutual expectations, objectives and goals. (Clutterbuck and Hirst, 2002).

Since different employees of management teams have different views, discussion between them is based upon different conclusions. They simply want to get clear messages across and communication may be an appropriate channel to deliver messages (Quirke, 1996). Organizations use a variety of channels to communicate, including, e-mail, face-to-face and meetings, memos/notes/faxes and the telephone. There have only bulletin boards used it sometimes. Communication provides opportunities for clarification, for making sense of an organization's progress, and for members to discuss improvement to an organization and the impact of using different risk mitigation strategies (Carey, 2001).

The responses believed that developing understanding between management team and employee, regularly communication between management and staff, create information clear and trustworthy, maintaining clear to communication and fast and sharp communication in organization all is support effective communication in risk management procedures.

No.3 Information Technology (IT)

Information technology (IT) is another factor that is indicated as a top priority in effective risk management procedures by most of the respondents. Organizations are large scale and it would be difficult for members to communicate and share information without information technology infrastructure (Hasanali, 2002). Information technology can enable prompt searches, access to and retrieval of data, and support communication in organizations.

Most of the financial institutions use the international standards system, methodologies or framework to protect their information. Information technology provides data security according to employee level, limiting a user's access by time, line of business, business activity and individual risk. IT tools collect data used in the past so that companies can learn through experience and avoid repeating mistakes (Rolland, 2008)

Top management is also responsible for controlling and evaluating the risks of IT. One of the respondents indicated that even IT managers share this responsibility, but the final report will be sent directly to the CEO. IT is related to all aspects of the business processes, including access to a shared infrastructure consisting of knowledge, human assets, core competencies, resource allocation, performance management, project tasking and communication support (Mutsaers, Zee and Giertz, 1998).

No.4: Culture

The respondents agree that culture is one of the most important factors for effective risk management procedures. It is not only the one factor which encourages the member to work more but also to work more efficiently. The respondents accept that collaboration within an organization comes from a strong culture. A collaborative and corporate organizational culture supported by long-term management, teamwork, collaboration, open communication, risk taking and so on (Mosadeghrad, 2006). Communication techniques and information management are the important things with which organizations should be involved. They though their existing organizational culture helps them know how to develop risk management strategies are not really important.

Some respondents believed that their organizations do not hesitate or resist to changes in culture for the development of risk management. As Grabowski and Roberts (1999) said, risk management requires the combination of several cultures that comprise the system into a cohesive whole in which the deep assumptions and espoused values in each of the member organizations can be built around the need for melding a culture of reliability. In particular situations, teamwork develops behavior by sharing individual belief, conducting meetings and seeking consensus to succeed management.

No.5 Trust

All of the respondents indicate that trust is an important and critical issue within their organizations. Trust is important because of the strong desire to understand how to create effective cooperation within organizations (Tyler, 2003). As Pinto, Slevin and English (2008) stated that the success of an organization and project performance is related to their ability to manage effective cooperation.

Trust permits an organization's members to focus upon its mission, unfettered by doubts about other members' roles, responsibilities and resources follow with Grabowski and Roberts (1999). The respondents showed that they most trust their superiors and feel confident enough to give their opinions and ideas due to trust came from the responses regarding the share of material,

information, resources and display good intent behavior as Erden (2003) said in previous study. Moreover, they also trust colleagues and subordinates. Risk management engages in activities that encourage share commitment. One of the means for driving effective risk management is trust.

No.6 Organizational Structure

Organizational structure involves an organization's internal pattern in relationships, authority and communication. Structure is comprised of formal lines of authority and communication, and the information as well as data that flow along these lines (Stank, Daugherty and Gustin, 1994). Structure and processes of the organizations are most effective when their design function match their environment and impact to organization's strategies (Hunter, 2002). The respondents agree that their organization have a documented guideline or policy for risk management.

Most of the respondents believe that the guideline supports the goals and objectives of risk management. As Hasanali (2002) and Department of State and Regional Development (2005) argue, one of the most important aspects of effective risk management is organizational structure. Organizational structure provides concepts, guidelines, direction and support to employees that conducted by the steering committee. The respondents understand the risk management guideline or policy.

Because the financial world is always in fluctuation, Carey (2001) suggests that organizational structure must be reviewed regularly and adjusted to adapt to changing financial environments. All of the respondents stated that their organization changes its guidelines or policies in order to manage risks. Most of the organizations implement changes and review their organizational structure every year. Moreover, Grabowski and Roberts (1999) suggest that risk management is primarily associated with the fluidity of organizational structures. It is a flexible approach to respond in different ways and respond quickly in the face of changing conditions.

No.7 Training

Risk management becomes a part of good business practice and should include training staff appropriately. The main reason for an education and training program is to ensure that the members are comfortable with the system and increase the expertise and knowledge level of the members, which is suggested by NSW Department of State and Regional Development (2005). Most companies offer training courses for new employees. The purpose of training is to improve knowledge, skills and attitudes that in turn increase confidence, motivation and job satisfaction (Fill and Mullins, 1990).

The ability to respond to changing conditions in an organization's operation is related to a range of activities including the development of risk training courses and involvement of staff in responding to an early warning system (Carey, 2001). The respondents state that their organizations have established procedures for keeping up-to-date and informed with changes in regulations to their staff. In addition, they provide risk management training courses at least once per year. The other companies also offer training courses more than once a year.

Some respondents on this survey suggest other factors for effective risk management procedure. One of the respondents thought that positive thinking motivates people to reach their goal. The other factors are coordination and teamwork, which we thought could be sub-factors under culture and trust. To sum up, the overall this thesis will be presented in the next chapter.

Chapter 6: Conclusions

This chapter will provide the final conclusions of the whole research and answer the research question. Finally, further research is suggested in the last part of this chapter.

6.1 Conclusion

According to the uncertainty of conditions, the financial industries are facing a large number of risks. For this reason, the financial industries emphasize risk management. Moreover, effective risk management is so important that it can increase project success. A framework of risk management is derived from Standards Australia and Standards New Zealand (2004) and the International Organization for Standardization (ISO/DIS 31000, 2008). The process of risk is comprised of identifying risks, analyzing risks and evaluating risks, risk treatment, communication and consultation, and monitoring and controlling risk events.

This research studies what critical success factors are necessary for effective risk management procedures. A set of critical success factors has been found in previous studies. Those factors are tested to answer the research question “What are the critical success factors for effective risk management procedures in financial industries?” Then we needed to collect data to answer our research question. A quantitative approach, namely a self-completion questionnaire, was used to collect data. The questionnaires were sent to 111 of potential samples, top-level positions in financial industries in Thailand. We were received 34 respondents from a wide range of the financial institutes. The response rate is 30.6 %. The respondents gave us the data that was analyzed and discussed. The discussion part shows the importance of each of the critical success factors in influencing risk management. Our findings indicate that the following factors, ranked according to importance, are the most vital:

1. Commitment and support from top management
2. Communication
3. Information technology
4. Culture
5. Trust
6. Organizational structure
7. Training

Now, we can answer the research question and confirm that the seven critical success factors in this study are acceptable which are: (1) Commitment and support from top management (2) Communication (3) Information technology (4) Culture (5) Trust, (6) Organizational structure and (7) Training.

These seven factors can increase the effectiveness of risk management procedures from the perspectives of the financial industries in Thailand.

6.2 Theoretical Implications

This research reveals the process of risk management that published by Standards Australia and Standards New Zealand (2004). From the previous studies, the seven critical success factors were informed for risk management. The comparison of critical success factors from each previous studied show as Table 1 in the chapter 2.

This study has revealed seven critical success factors for effective risk management in financial industries in perspective of financial institutions in Thailand. The empirical study was analyzed and tested. The hypothesis was confirmed by the empirical findings. Therefore, the seven critical success factors can be used to base on theory for effective risk management procedures in financial industries in Thailand.

6.3 Practical Implications

The following practical implications are suggestion for the future in risk management in financial industries. A set of critical success factors influence to manage risks by:

- Financial intuitions would hesitate to use each of critical success factor in their companies
- In the literature review, it describes the definition of each factor that it is important for organizations understand and use it appropriate in their company
- To ensure success in risk management, effort and co-operation from every level in organization are the main issues
- Top-level management plays a key role in risk management that related to all critical success factors in this study

The most important task for a risk management should be to ensure to effective decision-making for objectives to maximize the profit and minimize the future losses.

6.4 Strengths and Weaknesses

This study described risk management procedures by step to step for supporting the audience understand our subject. It provides figures and table that easy to interpret. The set of Critical

Success Factors formulated from the good theoretical background and used widely previous studies in the business areas.

Regarding survey, the empirical findings came from the respondents were responsibility directly with the risk management. The targeted group was the top-level management who understand risk management topic. Even though the questionnaire was conducted in English version but the all respondents well understand since the questionnaire was tested with the pilots to confirm it easy to understand.

Due to this study used a non-probability sampling in Thailand that difficult to get feedback and communication like face-to-face with us. And there is limited number of people have expertise in this research. Moreover, time is also limited. Perhaps the other data collection methods would have more specific category of respondents such as interview or face-to-face communication.

6.5 Suggestion for Further Research

Throughout working on this thesis, some suggestions concerning the expansion of the present study have arisen.

- In term of data collection, we suggest to collect data from different sources: further interviews and case studies in order to find more validated results.
- For more reliable results, the size of samples should be larger than in this study.
- Not only financial institutions are facing with risks but also other organizations: governments or hospitals, for example, should be a sample for further research.
- The seven factors presented in this research should be tested in other business areas such as knowledge management or ERP.

After performing this study it would say that the success in project in organizations needs the effort from all employees. Risk management should be investigated in the future research.

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Appendices

Appendix 1: Self-completion questionnaire format

Survey- CSFs for effective Risk Management in Thailand

From:  waph0003@student.umu.se

Sent: Tue 5/19/09 11:28 AM

To: battpalo@hotmail.com

Dear Sir or Madam,

This study is being conducted by Miss Prapawadee Na Ranong and Miss Wariya Phuenggam, students at the Umeå School of Business, Umeå University, Sweden. The purpose of this research is to identify critical success factors for effective risk management procedure from the perspectives of the financial industries in Thailand. With your participation, we hope to understand how your organization ranks critical success factors for effective risk management procedure and how they are important.

The questionnaire consists of 25 questions and should take no longer than 10 minutes to complete.

Here is a link to the survey:

http://www.surveymonkey.com/s.aspx?sm=EwtUSANfHq62wdmDKZZoHO3eWwM1YUu0MTR0gUIInay8_3d

The success of our research into risk management procedure is contingent upon your help. We therefore hope to receive your feedback by 11th May 2009. Your answers will be compiled and analyzed as soon as they have been received.

If you have any questions about this study, you can contact the person(s) below:

Miss Prapawadee Na Ranong
E-mail: prna0001@student.umu.se

Miss Wariya Phuenggam
E-mail: waph0003@student.umu.se

Thank you in advance for participating in this study.

Sincerely,
Miss. Prapawadee Na Ranong
Miss. Wariya Phuenggam

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.

<http://www.surveymonkey.com/optout.aspx>

Critical success factors for effective risk management procedures in

1. About the Questionnaire

The purpose of this questionnaire is to identify critical success factors for effective risk management procedures from the perspectives of the financial industries in Thailand. This questionnaire is part of a master thesis at the Umeå School of Business, Umeå University, Sweden.

The questionnaire is divided into the following segments:

1. General information
2. Critical success factors for effective risk management

- a. Commitment and support from top management
- b. Communication
- c. Culture
- d. Organization Structure
- e. Information technology
- f. Training
- g. Trust

3. Critical success factors ranking

This questionnaire contains 25 questions and should take no more than 10 minutes to complete. Your answers are completely anonymous.

If you have any queries concerning the questionnaire please contact:

Miss Prapawadee Na Ranong
E-mail; prna0001@student.umu.se,
Miss Wariya Phuengngam
E-mail; waph0003@student.umu.se

2. Terms Used in this Questionnaire

1. Critical Success Factors

An element of organizational activity which is central to its future success. Critical success factors may change over time, and may include factors such as product quality, employee attitudes, manufacturing flexibility, and brand awareness

2. Risk Management

The process of understanding and managing the risks that an organization is inevitably subject to when attempting to achieve its corporate objectives. For management purposes, risks are usually divided into categories such as operational, financial, legal compliance, information, and personnel.

3. Culture

The core beliefs, values, norms and social customs that govern the way individuals act and behave in an organization.

4. Organization Structure

The framework that defines reporting relationships between different positions within the organization. Organization structure facilitates the delegation of authority, allocation of resources, and decision-making within the organization.

3. Part 1 : General information

Critical success factors for effective risk management procedures in

1. In what line of business do you work?

- | | |
|----------------------------------------------|-----------------------------------------|
| <input type="radio"/> Asset management | <input type="radio"/> Insurance |
| <input type="radio"/> Banking | <input type="radio"/> Securities Broker |
| <input type="radio"/> Consultancy | <input type="radio"/> Stock Exchange |
| <input type="radio"/> Other (please specify) | |

2. How many years of experience do you have working with risk management?

- Less than 1 year
- 1 -2 years
- 3-5 years
- More than 5 years

3. What is your expectation from effective risk management in your organization? (You may choose more than one answer)

- Reduce financial losses
- Improve communication with the stakeholders
- Improve decision making
- Improve resource allocation
- Other (please specify)

4. Part 2 ; a. Commitment and support from top management

1. Who has the authority to establish risk management in your organization?

- Chief Executive Officer (CEO)
- Chief Financial Officer (CFO)
- Board/Committee
- Executive Management Team
- Internal auditor
- Staff
- Other (please specify)

Critical success factors for effective risk management procedures in

2. How does your organization support its risk management policy?(You may choose more than one answer)

- Allocating resources
- Clearly allocating risk management responsibilities
- Setting up risk management teams
- Regularly revising risk management plans
- Listening to problems from employees
- Strictly obeying risk management policy
- Other (please specify) _____

3. In the future, does your organization have a policy to support the development of risk management?

- Yes
- No

5. Part 2; b. Communication

1. Please rate how often your organization uses the following methods of communication.

	Almost never	Sometimes	Fairly often	Very often	Always
Bulletin board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face-to-face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meeting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Memo/Note/Fax	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How does your organization effectively communicate to reduce risk? (You may choose more than one answer)

- Creating clear and trustworthy information
- Developing understanding between management team and employee
- Fast and sharp communication between management team and stakeholder
- Regularly communicating among management and staff
- Creating and maintaining a clear communication
- Other (please specify) _____

Critical success factors for effective risk management procedures in

6. Part 2; c. Culture

1. Please rate the degree to which you agree / disagree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Collaboration within an organization comes from a strong culture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication techniques and information management are the most important things with which organizations should be involved.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your existing organizational culture helps you know how to develop risk management strategies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your organization does not hesitate to change the old culture for its development of risk management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changing in culture is not resisted here if they are good for the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Part 2; d. Organization Structure

1. Does your organization have a documented risk management guideline or policy?

- Yes
 NO

2. Does the guideline support the goals and objectives of risk management?

- Yes
 No

3. Do you understand the risk management guideline or policy?

- Yes
 No

Critical success factors for effective risk management procedures in

4. How often does your organization change its guidelines or policies to manage risks?

- Once per year.
- Once per 2 years.
- Once in more than 2 years.
- Never

8. Part 2; e. Information Technology (IT)

1. Does your organization use international standards, methodologies or frameworks to protect information?

- Yes
- No

2. Who has the responsibility to control and evaluate the risks of IT?

- Chief Executive Officer (CEO)
- Board/Committee
- Executive Management Team
- IT auditors
- Staff
- Other (please specify)

9. Part 2; f. Training

1. How often does your organization provide risk management training courses?

- Never
- Less than 1 time per year
- 1 time per year
- 2 times per year
- More than 2 times per year

2. Does your organization have established procedures for keeping up-to-date and informed with changes in regulations?

- Yes
- No

Critical success factors for effective risk management procedures in

3. Does your organization offer training for new employees?

- Yes
 No

10. Part 2; g. Trust

1. Please rate the degree to which you agree / disagree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I can trust most of my colleagues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can trust my superiors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can trust my subordinates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident to give my opinions and ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How important do you think trust is within your organization?

- Critical
 Important
 Not Important

11. Part 3: Critical success factors ranking

* 1. How would you rate the importance of the following critical success factors?

	Very Unimportant	Unimportant	Neutral	Important	Very Important
Commitment and support from top management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organization Structure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information Technology (IT)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Critical success factors for effective risk management procedures in

*** 2. Please rank the following critical success factors according to the extent to which they challenge effective risk management within your organization, with "1" being the most challenging and "7" being the least challenging.**

	1	2	3	4	5	6	7
Commitment and support from top management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organization Structure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information Technology(IT)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Are there any additional critical success factors would you like to mention, for effective risk management procedure in financial industries?

4. If you have any comments or suggestions, please state them below

5. Would you like to have a summary of the study results sent to you by email? If yes, please fill in your email address.

Yes

No

E-mail

Thank You for your participating in this study.

Appendix 2: The number of Cronbach's Alpha

Case Processing Summary				
		N	%	
Cases	Valid		30	100
	Excluded(a)		0	0
	Total		30	100
a	Listwise deletion based on all variables in the procedure.			
Reliability Statistics				
Cronbach's Alpha	N of Items			
0.615	22			
Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
VAR00001	83.7000	30.010	0.035	0.635
VAR00002	81.5667	29.771	0.234	0.601
VAR00003	82.6667	26.575	0.340	0.581
VAR00004	82.4000	27.766	0.347	0.583
VAR00005	83.3000	27.803	0.228	0.602
VAR00006	82.5000	26.328	0.332	0.582
VAR00007	82.2000	29.752	0.168	0.608
VAR00008	82.1667	28.833	0.252	0.597
VAR00009	82.7000	27.872	0.294	0.590
VAR00010	82.6333	27.895	0.338	0.585
VAR00011	82.6667	28.575	0.363	0.586
VAR00012	82.3333	28.230	0.443	0.579
VAR00013	82.2000	28.441	0.410	0.582
VAR00014	82.3000	29.597	0.340	0.594
VAR00015	82.1333	30.395	0.223	0.605
VAR00016	81.6333	31.482	-0.013	0.622
VAR00017	81.4667	31.913	-0.093	0.625
VAR00018	82.2333	29.771	0.224	0.602
VAR00019	82.3000	30.286	0.125	0.612
VAR00020	82.1667	32.902	-0.233	0.644
VAR00021	82.4667	30.947	0.015	0.626

Appendix 3: Crosstab and chi square tests

1. Commitment and support from top management

Crosstab

			line of business					Total
			Asset management	Banking	Insurance	Securities Broker	Stock Exchange	
Top Important	Count		4	2	3	2	1	12
	Expected Count		2.8	2.1	4.6	1.8	.7	12.0
	% within Top		33.3%	16.7%	25.0%	16.7%	8.3%	100.0%
Very Important	Count		4	4	10	3	1	22
	Expected Count		5.2	3.9	8.4	3.2	1.3	22.0
	% within Top		18.2%	18.2%	45.5%	13.6%	4.5%	100.0%
Total	Count		8	6	13	5	2	34
	Expected Count		8.0	6.0	13.0	5.0	2.0	34.0
	% within Top		23.5%	17.6%	38.2%	14.7%	5.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	1.855 ^a	4	.762	.808
Likelihood Ratio	1.872	4	.759	.842
Fisher's Exact Test	2.372			.729
N of Valid Cases	34			

a. 8 cells (80.0%) have expected count less than 5. The minimum expected count is .71.

2. Communication

Crosstab

			line of business					Total
			Asset management	Banking	Insurance	Securities Broker	Stock Exchange	
Com Important	Count		3	2	2	0	0	7
	Expected Count		1.6	1.2	2.7	1.0	.4	7.0
	% within Com		42.9%	28.6%	28.6%	.0%	.0%	100.0%
Very Important	Count		5	4	11	5	2	27
	Expected Count		6.4	4.8	10.3	4.0	1.6	27.0
	% within Com		18.5%	14.8%	40.7%	18.5%	7.4%	100.0%
Total	Count		8	6	13	5	2	34
	Expected Count		8.0	6.0	13.0	5.0	2.0	34.0
	% within Com		23.5%	17.6%	38.2%	14.7%	5.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	4.026 ^a	4	.403	.408
Likelihood Ratio	5.189	4	.268	.366
Fisher's Exact Test	3.496			.503
N of Valid Cases	34			

a. 8 cells (80.0%) have expected count less than 5. The minimum expected count is .41.

3. Culture

Crosstab

			line of business					Total
			Asset management	Banking	Insurance	Securities Broker	Stock Exchange	
Cul	Neutral	Count	1	3	0	0	1	5
		Expected Count	1.2	.9	1.9	.7	.3	5.0
		% within Cul	20.0%	60.0%	.0%	.0%	20.0%	100.0%
	Important	Count	5	2	10	5	1	23
		Expected Count	5.4	4.1	8.8	3.4	1.4	23.0
		% within Cul	21.7%	8.7%	43.5%	21.7%	4.3%	100.0%
	Very Important	Count	2	1	3	0	0	6
		Expected Count	1.4	1.1	2.3	.9	.4	6.0
		% within Cul	33.3%	16.7%	50.0%	.0%	.0%	100.0%
Total	Count	8	6	13	5	2	34	
	Expected Count	8.0	6.0	13.0	5.0	2.0	34.0	
	% within Cul	23.5%	17.6%	38.2%	14.7%	5.9%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	13.258 ^a	8	.103	.102
Likelihood Ratio	14.605	8	.067	.102
Fisher's Exact Test	11.122			.093
N of Valid Cases	34			

a. 13 cells (86.7%) have expected count less than 5. The minimum expected count is .29.

4. Organizational Structure

Crosstab

		line of business					Total
		Asset management	Banking	Insurance	Securities Broker	Stock Exchange	
Structure Unimportant	Count	1	0	0	0	0	1
	Expected Count	.2	.2	.4	.1	.1	1.0
	% within Structure	100.0%	.0%	.0%	.0%	.0%	100.0%
Neutral	Count	0	2	2	0	1	5
	Expected Count	1.2	.9	1.9	.7	.3	5.0
	% within Structure	.0%	40.0%	40.0%	.0%	20.0%	100.0%
Important	Count	6	4	7	4	0	21
	Expected Count	4.9	3.7	8.0	3.1	1.2	21.0
	% within Structure	28.6%	19.0%	33.3%	19.0%	.0%	100.0%
Very Important	Count	1	0	4	1	1	7
	Expected Count	1.6	1.2	2.7	1.0	.4	7.0
	% within Structure	14.3%	.0%	57.1%	14.3%	14.3%	100.0%
Total	Count	8	6	13	5	2	34
	Expected Count	8.0	6.0	13.0	5.0	2.0	34.0
	% within Structure	23.5%	17.6%	38.2%	14.7%	5.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	13.871 ^a	12	.309	.300
Likelihood Ratio	15.096	12	.236	.273
Fisher's Exact Test	13.606			.277
N of Valid Cases	34			

a. 19 cells (95.0%) have expected count less than 5. The minimum expected count is .06.

5. Information Technology (IT)

Crosstab

			line of business					Total
			Asset management	Banking	Insurance	Securities Broker	Stock Exchange	
IT	Neutral	Count	1	2	1	0	0	4
		Expected Count	.9	.7	1.5	.6	.2	4.0
		% within IT	25.0%	50.0%	25.0%	.0%	.0%	100.0%
	Important	Count	6	3	9	3	2	23
		Expected Count	5.4	4.1	8.8	3.4	1.4	23.0
		% within IT	26.1%	13.0%	39.1%	13.0%	8.7%	100.0%
	Very Important	Count	1	1	3	2	0	7
		Expected Count	1.6	1.2	2.7	1.0	.4	7.0
		% within IT	14.3%	14.3%	42.9%	28.6%	.0%	100.0%
Total	Count	8	6	13	5	2	34	
	Expected Count	8.0	6.0	13.0	5.0	2.0	34.0	
	% within IT	23.5%	17.6%	38.2%	14.7%	5.9%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	5.746 ^a	8	.676	.735
Likelihood Ratio	6.043	8	.642	.835
Fisher's Exact Test	5.098			.821
N of Valid Cases	34			

a. 13 cells (86.7%) have expected count less than 5. The minimum expected count is .24.

6. Training

Crosstab

			line of business					Total
			Asset management	Banking	Insurance	Securities Broker	Stock Exchange	
Training Unimportant	Count		1	0	0	0	0	1
	Expected Count		.2	.2	.4	.1	.1	1.0
	% within Training		100.0%	.0%	.0%	.0%	.0%	100.0%
Neutral	Count		1	3	3	1	1	9
	Expected Count		2.1	1.6	3.4	1.3	.5	9.0
	% within Training		11.1%	33.3%	33.3%	11.1%	11.1%	100.0%
Important	Count		6	2	5	4	1	18
	Expected Count		4.2	3.2	6.9	2.6	1.1	18.0
	% within Training		33.3%	11.1%	27.8%	22.2%	5.6%	100.0%
Very Important	Count		0	1	5	0	0	6
	Expected Count		1.4	1.1	2.3	.9	.4	6.0
	% within Training		.0%	16.7%	83.3%	.0%	.0%	100.0%
Total	Count		8	6	13	5	2	34
	Expected Count		8.0	6.0	13.0	5.0	2.0	34.0
	% within Training		23.5%	17.6%	38.2%	14.7%	5.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	13.871 ^a	12	.309	.300
Likelihood Ratio	15.096	12	.236	.273
Fisher's Exact Test	13.606			.277
N of Valid Cases	34			

a. 19 cells (95.0%) have expected count less than 5. The minimum expected count is .06.

7. Trust

Crosstab

			line of business					Total
			Asset management	Banking	Insurance	Securities Broker	Stock Exchange	
Trust Neutral	Count		0	0	0	1	0	1
	Expected Count		.2	.2	.4	.1	.1	1.0
	% within Trust		.0%	.0%	.0%	100.0%	.0%	100.0%
Important	Count		5	4	4	3	2	18
	Expected Count		4.2	3.2	6.9	2.6	1.1	18.0
	% within Trust		27.8%	22.2%	22.2%	16.7%	11.1%	100.0%
Very Important	Count		3	2	9	1	0	15
	Expected Count		3.5	2.6	5.7	2.2	.9	15.0
	% within Trust		20.0%	13.3%	60.0%	6.7%	.0%	100.0%
Total	Count		8	6	13	5	2	34
	Expected Count		8.0	6.0	13.0	5.0	2.0	34.0
	% within Trust		23.5%	17.6%	38.2%	14.7%	5.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	11.880 ^a	8	.157	.139
Likelihood Ratio	10.723	8	.218	.166
Fisher's Exact Test	10.764			.184
N of Valid Cases	34			

a. 13 cells (86.7%) have expected count less than 5. The minimum expected count is .06.