# Significant success factors for effective risk management in the UAE

# عوامل النجاح الهامة لإدارة مخاطر فعّالة في الإمارات العربية المتحدة

Nouf Al Kahtani

80089

Dissertation submitted in partial fulfillment of

MSc in Project Management

Faculty of Business

Dissertation Supervisor

Dr. Paul

Jan, 2013

Table of Contents

List of Figures

List of Tables

**Abstract**

Risk management is one of the fields that have gained more interest today, especially considering the fact that business environment is today faced with conditions of uncertainty. This therefore emphasizes on the significance of effective risk management procedures within the organizations. As a result, this study examines the significant success factors for effective risk management in the United Arab Emirates. To investigate the importance of the significant success factors for risk management in a practical context, the study applied a quantitative method, whereby questionnaires were distributed to the respondents to collect data for the study. Data was obtained from the top level management including, Chief Executive Officers (CEO), executive directors, financial officers, and board of directors, since they are directly responsible for matters related to risk management within their organizations. This study developed a set of seven significant success factors that could be applied as a guideline for enhancing the effectiveness of risk management within the organization. These factors include: support and commitment from the top management, communication, organizational culture, information technology, organizational structure, training, and trust. These factors could therefore be applied to enhance the effectiveness of risk management in the United Arab Emirates.

# ملخص

تعد "إدارة المخاطر" أحد أهم التخصصات الإدارية المطلوبة مؤخراً، خصوصاً إذا أخذنا بعين الاعتبار حقيقة تعرض بيئة الاقتصاد إلى حالات من عدم الثقة .هذا بدوره يؤكد على أهمية تأثير إدارة المخاطر وفعاليتها داخل المنظمات والشركات. وبناءاً عليه فإن هذه الدراسة تبحث في عوامل نجاح إدارة المخاطر وفعاليتها في دولة الإمارات العربية المتحدة. ويتخذ هذا التحقيق من السياق العملي منهجاً للبحث، حيث تطبق دراسة الوسائل الكمية، وذلك من خلال توزيع استبيانات على عينة مختارة من شرائح البحث، بهدف جمع البيانات المطلوبة لهذه الدراسة. وقد تم الحصول على بيانات ومواد البحث من خلال مدراء تنفيذيين وأعضاء مجلس الإدارة باعتبار تلك المستويات الوظيفية والإدارية مسؤولة بشكل مباشر عن كافة القضايا ذات الصلة بإدارة المخاطر داخل منظماتهم. وقد خلصت هذه الدراسة إلى تحديد سبعة عوامل ضرورية للنجاح، والتي يمكن تطبيقها واعتمادها كمبادئ وتوصيات عامة تساعد على تعزيز فعالية إدارة المخاطر في داخل أية منظمة. و تشمل هذه العوامل:- الالتزام والدعم من الإدارة العليا - تبادل المعلومات والتواصل - ثقافة المنظومة - تكنلوجيا المعلومات - الهيكل التنظيمي للمؤسسة – التدريب - الثقة. ولذلك فإن هذه العوامل يمكن تطبيقها بهدف تعزيز فعالية إدارة المخاطر في الإمارات العربية المتحدة.

# Chapter 1

## 1.0 Introduction

### 1.1 Background

Apparently, each and every organization, whether small or big, has to protect its asset, mission, and objective. The modern advancements in information technology have enabled organizations to process missions and visions for greater benefits. However, as noted from Xenomorph (2007), the concept of risk management is not only restricted to the public or private organizations but can be applied to any activity. Therefore, the opportunities and benefits of risk management should not be analyzed from the point of view of the activity only but in relation to numerous varied stakeholders who can be affected. Risk management is a process that entails the identification of risks, risk assessment, and the implementation of effective approaches to help reduce the risks to the acceptable levels (Doherty 2000). However, despite the fact that all these process are of equal significance, it cannot be refuted that the success in risk management depends on perfect risk identification processes (Doherty 2000). It is the main reason as to why it is very essential for organizations and industries to be able to identify all the critical success factors that will ensure effective risk management.

According to Meier (2000), effective control and management of the factors that cause the risk often lead to the increased investor confidence, company's growth, and market leadership. Furthermore, theoretical evidence indicates that value can be attained from the adoption and implementation of risk management while displaying how risks can lead to the destruction of the corporate worth (Doherty 2000). Basically, the concept of risk management has today turned out to be a worldwide issue and is perceived as a very significant component of all forms of organizations globally.

However, the field of risk management that started during the early 1950s was only limited to pure loss exposures, a case whereby the management of risks was conducted through financing and controlling techniques (Doherty 2000). The most applicable financing approach in dealing with corporate risk is insurance, also known as traditional risk management. It has been applied to manage liability, property, and other related risks (Doherty 2000). However, the traditional risk management approach has generated overlapping costs for the organizations and fails to provide an overall view of the risks. Therefore, industries and businesses have realized the significance of adopting effective approaches in the management of risks. In this regard, an effective approach is considered the one that aligns strategy, people, knowledge, technology, and processes with the reason for managing and evaluating the uncertainties the organization is likely to encounter while creating value (Doherty 2000). A crisis or event will most likely to make investors overreact, leading to severe implications for the organization. Time and again, the reasons given for the current unprecedented crisis of confidence has been blamed for failures of corporate governance, risk management, and risk controls, due to non effective polices of risk mitigation. Therefore, risk management is an integral part of the organization if it is to thrive well in the market and attract investors (Xenomorph, 2007).This is so considering the fact that most organizations, industries, businesses, as well as institutions are susceptible to conditions of uncertainty. Therefore, so as to enhance confidence among the shareholders and stakeholders, significant resources should be directed towards risk management.

## 1.2 Research Problem

Risk management is defined as a field that goes beyond regulatory compliance and crisis management to generate a structured and tangible approach for tackling both the financial and organizational risks, having the ultimate aim of enhancing the competitive advantage and the shareholder value (Altman and Cooper 2004). A study conducted by Funston and Galloway (2000) suggests that organizations applying risk management create and preserve the value. This entails the effective management of the basic processes and continuous innovation, since the organizations are able to take strategic and business risks successfully. Such organizations are able to predict risks in a better way compared to the competitors, thus, considered as capable organizations (Funston & Galloway 2000). According Carey (2001), creating a suitable cultural framework requires the employees' support in each and every step, for instance, identifying, controlling, and monitoring risks. However, to ensure risk management becomes efficient, the organization's internal audit team has to be taken seriously, which means that the team attains the right of support from the organizations top management (Carey 2001). According to

PricewaterhouseCoopers (2007), effective risk management calls for: commitment from the top management, culture and governance, embedded risk managers, and quality data. Other studies conducted by Griffith University indicate that the success in risk management calls for the execution of communication policies that will ensure the organization's employees are sensitive to the perceived risks and know whom they ought to report to in case of anything happens (Harris 2006). Some organizations appoint teams that have a clear and full understanding of the organization and are knowledgeable about the various dimensions of risks, for instance, marketing team focusing on marketing risks. Furthermore, most of the large organizations are establishing teams charged with the responsibility of ensuring the various risks within the organization are understood, researching on information regarding security risks, and advising the top management when it comes to investment decisions (Harris 2006). A number of studies, such as Simon Fraser University and COBIT, have recognized the factors that have the greatest influence in attaining success in risk management. These studies have outlined the critical success factors for effective risk management in various dimensions as well as denoted which factors are significant and how these factors are important. The aim of this research is to examine the critical success factors for effective risk management. The study, therefore, seeks to verify that the critical success factors for effective risk management as outlined by the previous studies that are not only valid, but could be applied in the United Arab Emirates.

### 1.3 Purpose of the Study

Risk is an unavoidable and inherent element while conducting any form of business. Each business always has a major goal of striking an optimum balance between the return and risk, which is an assurance of business success. All companies, regardless of the core business, corporate structure, or size must, at some point during their operations, plan and anticipate for the different types of risks it is likely to encounter, in an aim to promote survival, growth, and sustainability. It is what is known as risk management and is something that is applicable to all forms of organizations and businesses. This study seeks to examine the critical success factors for effective risk management. The findings of this research are expected to illustrate a set of the critical factors that could be applied to attain the effectiveness in risk management. However, considering the fact that risk management is a field that cuts across many areas of business and government, including insurance, occupational safety, finance, public health, marketing, among many others, its effectiveness can actually be applied to enhance the success, in terms attaining goals and objectives. Basically, the organizations or companies will benefit from the findings of this research as they can apply these factors to enhance the success of their operations and projects since they will have a clear understanding of their potential threats and how to effectively deal with such threats to ensure the success. The researchers will also benefit as they will be able to share the findings of this study and identify gaps for further research. The findings will also be of benefit to the general audience, particularly those with a specific interest in risk management. The findings of this study should generally be applied as a base on matters relating to management.

### 1.4 Research Aims and Objectives

Risk management is a field that has been widely researched on, and most of studies have reported that incorporating risk management generates value for the organization. This research, therefore, aims to examine the critical success factors for effective risk management through a real life example on an organization in the AE. To achieve this aim, the following objectives should be achieved:

- To analyze the concept of risk management and critical success factors based on the literature review.
- Examine the critical success factors for effective risk management.
- Outline the importance of each of the critical factors.

### 1.5 Research Question

This research attempts to answer this question:

- What are the critical success factors for effective risk management in the United Arab Emirates?

### 1.6 Outline of the Methodology

This study is basically rooted on a quantitative methodology. The study analyses both the primary and secondary data. The secondary data is basically collected from books, journals, and articles with regard to the topic of the study. The case studies are analysed in the secondary sources to examine the critical success factors for effective risk management. Primary data is obtained through the use of questionnaires, which will be randomly distributed to the sampled respondents. The target group for this study are the top-level management such as: managers, seniors, chief managers, CEO because these are the people who are directly responsible for risk management. Furthermore, these are the individuals who have a clear understanding of risk management procedures within the organization. Data collected is then analysed through the SPSS software.

## 1.7 Definition of Key Concepts

### 1.7.1 Critical Success Factors

The critical success factors, is a concept that is used in this study to refer to an element of an organizational activity or process that is vital for its success in the future. However, it is important to note that the critical success factors may change with time.

### 1.7.2 Risk Management

Risk management is considered as a process that enables the organization to understand and deal with the risks it may encounter during its operations. There are various types of risks, depending on the nature of risks, for instance, personnel, information, financial, operational, and legal compliance.

### 1.7.3 Organizational Culture

This is perceived as the core values, social customs, norms, and beliefs that control the manner in which individuals behave and act within the organization. This is an important element of the organization as it directs the behaviours of the employees towards attaining the set objectives and targets.

### 1.7.4 Organizational Structure

This is defined as the framework that establishes reporting relationships among the various organizational positions. This is also considered as an important aspect of the organization as it allows the delegation of authority, decision making, and resource allocation within the organization.

### 1.8 Overview of Dissertation Chapter Contents

This study is organized into six chapters. Chapter 1, introduction, provides the background of the study, the research question and the main purpose of the research. Chapter 2, literature review, entails the analysis and evaluation of the already documented literature regarding the topic under research. It provides a description of the concept of risk management in an aim to generate a clear understanding and the explanations of the critical factors in risk management. Chapter 3, methodology, discusses the research methodology. It describes the instruments along with the procedure that will be applied while collecting data. The method applied in data analysis is also provided in this chapter. It discusses data limitation as well. It basically illustrates the approach applied by the research to give the answer to the research question and attain the research aim. Chapter 4, Research findings, presents the results of the data collected. The findings of the study are discussed in relation to the objectives of the study. Chapter 5, Discussion, provides the discussion to answer the research question basing on the results of the data analysis. The final chapter 6, Conclusion, describes the conclusion of the study. It highlights if the research question has been adequately answered or not. It is a brief summary of what has been found in the previous chapters and makes recommendations for future studie

# Chapter 2

## 2.0 Literature Review

## 2.1 Introduction

This chapter provides the articles and theories relevant to the research topic, significant success factors for effective risk management. Furthermore, a number of empirical studies have been conducted regarding this topic, which will therefore be analyzed in this study. An overview of risk management is provided, along with the critical success factors for risk management. This chapter seeks to enable readers understand the fundamentals of risk management and emphasizes on the critical success factors that could be adopted to ensure effective risk management.

## 2.2 Risk Management Overview

Risk management is a concept that has gained popularity over the recent past, especially considering the volatile business environment most businesses and organizations are today subjected to. Risk is a fundamental element when it comes to the organization's investment strategy. It is therefore very imperative for nay business or organization to have a clear understanding of the source of the risk, and identify and assess the factors that contribute to the risk. For this reason, the concept of risk management is very significant in all sectors (Carey 2001). In this section, the definition of risk is first provided, then the concept of risk management is analyzed and finally, the risk management procedures.

### 2.2.1 Risk

Risk is considered as the probability of a disastrous activity or event to happen and the level of losses that arise as a result of the happening. A loss can either be direct or indirect depending on the magnitude of the situation or activity, for instance, an earthquake can result in destruction of buildings, which is considered as a direct loss, whereas the indirect loss could be in form of lost customer and investor confidence, increased costs during the process of recovery, and lost reputation. However, it is important to note that likelihood of a happening will always have significant impacts on the attainment of the set objectives (NIST 2004; Partnerships BC 2005). According to Oxelheim and Wihlborg (1997), risk is defined as a measure of the magnitude and timing of the unanticipated changes that is estimated relative to the anticipated changes within the variables. Basing on this definition, it is clear that risk is considered as a gauge of the unanticipated changes.

In essence, risks are often defined basing on the adverse effects on the profitability of various sources of uncertainty, whereas the forms and magnitude of risks the organization is likely to encounter are based on various factors including, size and the complexity of the business operations (SBP, 2003). Risks can either be classified as systematic or unsystematic (Al-Tamimi & Al-Mazrooei 2007). In this case, the systematic risks are considered as those inherent to the entire market or system that cannot be managed through diversification. Unsystematic risks are often related to individual assets and can thus be managed through diversification.

### 2.2.2 Types of Risks

There are various risks that organizations or companies are exposed to. The main types include:

- Market risks;
- Business risks;
- Credit risks;
- Operational risks;
- Financial risks;
- Reputational risks.

#### 2.2.2.1 Market Risks

Market risks are considered as those that are often associated with the changes in security prices, particularly the share prices. Apparently, if an investor obtains a share and the whole market declines, this would result in a decline in the price of the share. On the contrary, if the market grows, the share price also tends to increase (Al-Tamimi & Al-Mazrooei 2007). Therefore, having a clear understanding of the risks associated with the market helps in understanding the behaviour of the prices. However, it is important to note that the movements in the market prices are often beyond the organization's control. An unexpected terrorist activity, political unrest, or the end or war, are some of the terrific psychological factors existing within the market. Whatever the factor, it is generally agreed that a decline in the market is considered as a short-term cyclical swing that results in a short-term fall in the share prices. Most companies, especially the large companies, highlight that foreign exchange rates and the interest rates are the major market risk exposures. On the other hand, some companies report being exposed to energy and commodity prices. Where the organization or company is exposed to volatile market risks, or lacks the capacity to handle its market risks, it is important that measures are adopted to help in controlling the different elements evident in the market.

#### 2.2.2.2 Business Risks

Business risks are considered as the uncertainties inherent in projections of the expected returns on assets (Tcankova 2002).The capital structure of the company determines the riskiness of the company's share, thus, determines its required price and rate of return on the share. Looking at the capital structure policy, companies are required to choose between return and risk. An increase in the company's level of debt results in increased riskiness in its earning stream; however, it is also expected that company will attain a higher rate of return. Increased levels of risks often tend to result in a decline in the prices of the shares, but increased levels of expected rates of return often tend to increase it. Therefore, the share prices are maximized when the companies manage to strike a balance with the optimal capital structure (Tcankova 2002). However, it is important to note that business risks depend on various factors including demand variability, sales price variability, and the degree to which costs are fixed (Tcankova 2002). These factors are partly determined by the company's industry characteristics.

#### 2.2.2.3 Credit Risks

Credit risks refer to the likelihood that a borrower may not succeed to pay back a loan. Al-Tamimi and Al-Mazrooei (2007) highlight that lending from the corporate loans to credit cards is the most obvious and largest source of credit risk. Investors and fund managers are exposed to credit risks associated with the fixed income investments. On the other hand, organizations and companies are exposed to credit risks in the event that suppliers, foreign partners or other companies could fail, or default to meet the set deadlines. The identification and implementation of new tools as well as success factors that would ensure effective credit risk management will in turn enable companies to deal with such risks. These include the application of securitisations and credit derivatives, thus, enhancing the risks to which the financial sector is exposed to (Tcankova 2002).

#### 2.2.2.4 Financial Risks

These refer to the extra risks that are directed to the ordinary shareholders as a consequence of using financial leverage. Essentially, financial leverage is considered as the application of preference shares, debt, and fixed-income securities. Apparently, companies have specific amounts of risks inherent to their daily operations. However, when the company takes on financial leverage, it basically concentrates the business risks on its shareholders. Therefore, this fraction of shareholder’s risk, above and over the business risk, which comes as a result of the use of the financial leverage, is what is referred to as financial risk (Tcankova 2002).

#### 2.2.2.5 Operational Risks

This is concerned with the undesirable variation of the performance of the company based on the manner in which it is operated, contrary to how it is financed. According to Al-Tamimi and Al-Mazrooei (2007), operation risks are considered as a measure of the relationship between a company’s business activities and deviation in its business outcomes. Identifying the company’s operational risks should not be considered as a major goal. However, it is important to note that identifying significant operational risks that could contain considerable impacts on the company’s value is a challenging task. Tcankova (2002).highlights that the identification of operational risks is more of an art than science, and can become challenging for various reasons. First, the definition of an operational risk and how this is differentiated from the business risks is significantly grounded on the business and risk management strategies of the company. Second, the challenge arises from the correlation between loss and risk. In most cases, losses related to operational risks tend to be driven by the liquidity, credit, or market risks (Tcankova 2002).

However, it is important to highlight that operational risks assist the company's management to identify the factors affecting income, in terms of general operations. Factors responsible for movements in income have to be investigated so as to help determine the general effect. Anderson and Terp (2006) emphasize that the management needs to have a clear understanding of the source of the risk, in order to be able to manage the risk effectively and achieve the intended balance between the return and risk. Effective operational control would imply having a controlled approach of creating assurance as with regards to the attainment of specified performance objectives. In essence, risks assist in identifying the impact of the company's performance fluctuations, and the operational risk actually determine the link between business activities and these fluctuations. A decline in the operational risks results in a domino effect, a scenario whereby reduced income leads to increased value for the company or organization (Tcankova 2002).

#### 2.2.2.6 Reputational Risks

Reputation is considered as a collective representation of the previous actions and outcomes of the company. A company's reputation is used to determine its ability to generate valued outcomes to various stakeholders, and how these stakeholders view its brand through the routine conduct and operations (Al-Tamimi & Al-Mazrooei 2007). It is thus important to understand that the reputation of the company is grounded on the relationships it maintains with its stakeholders. Significant relationship matters entail various types of benefits, both the tangible and intangible that are provided to the shareholders, and the attitude the shareholders have regarding its previous behaviour. Anderson and Terp (2006) suggest that a company's reputation is driven by its financial performance, corporate social responsibility, delivery of the customer promises, and crisis management and communications. It is the company's management responsibility to ensure the interests of its shareholders, creditors and employees is protected, which indeed is considered as the core to the protection of the company's reputation (Al-Tamimi & Al-Mazrooei 2007).

However, it is important to note that reputation risks do happen in isolation, but rather interact with the cultural, social, and psychological processes. Anderson and Terp (2006) emphasize that there is nothing like reputation risk, but a risk to reputation. Furthermore, it is worth noting that there are various risks that have an impact on the company's reputation. For instance, reputation risks can happen as a result of the negative publicity due to mismanaged business practice or certain events. This can lead to a drop in customer base, hence affecting the company's revenue. It could also result in considerable depreciation in market capitalization and liquidity constraints, because of the reduction in customer loyalty. However, it is important to note that reputation risk cannot be easily quantified, considering the fact that this is a risk on its own and can as well be a derivative from other risks. In order to effectively manage reputation risks, the company's management has to identify and document all risks systematically. In addition, it is important to identify all the significant risks, in order to identify measures that could be used to address each of the identified risks (Anderson & Terp 2006). Tcankova (2002) stresses that companies should always be ready to identify the potential threats that could ruin their reputation and establish procedures, policies, allies, and defences to help them to overcome such threats. This would in turn help in averting impending disasters, through the identification of indicators that offer the management with adequate warning regarding the potential disasters that would ruin reputation.

### 2.3 Risk Management

The concept of risk management has been defined in various ways. According to Anderson and Terp (2006), risk management is a process that seeks to reduce, control, or eliminate risks, increase benefits, and bar detriments that could arise from the speculative exposures. In this case, the main aim of risk management is to help maximize on the probability of success and minimize on the potential of future losses. According to the Committee of Sponsoring Organizations of the Treadway Commission (2004), risk management as a process effected by the body's management, board of directors, and other personnel, implemented in strategy setting within the company, designed to identify some of the potential threats the company faces, and manage such risks to be within the company's control and generate a reasonable assurance as with regards to the attainment of the company's goals and objectives. In essence, risk management is considered as a process aimed at helping companies and organizations control the potential risks it might affect during its operations, though identifying, assessing, and addressing the identified risks. Risk management can help minimize the negative effects and maximize on the emerging opportunities. The result may assist in mitigating the probability of the risk happening and the expected negative effect when such incidents take place (Partnerships BC 2005). It entails identifying, estimating, monitoring, and managing risks. This seeks to ensure that an individual understand the process of risk management clearly and meets the business objectives and strategy (SBP 2003). Basing on the definitions that have been brought forward regarding risk management, it is worthy highlighting that this process entails:

- Elimination, reduction, and control of risks;
- Identification, analysis, calculation, monitoring and control of risks;
- Minimizing the emerging and negative opportunities;
- Attainment of business objectives and strategy.

### 2.3.1 Risk Management Procedures

Several studies have taken a step to look into the procedures that could be applied to attain success in risk management. However, it is important to note that these procedures have been addressed differently bay various scholars. According to SBP (2003), the framework for risk management entails the scope, procedures/systems/processes to deal with risks and the responsibilities and roles to the personnel concerned with risk management. An effective risk management framework incorporates the risk management procedures and policies that cover up risk identification, measurement, acceptance, reporting monitoring, and control. A review of the risk management procedures was conducted by the National Institute of Standards and Technology (2004) and this categorised into three sections: assessment of risk, mitigation of risk, and the evaluation and assessment. The process of risk assessment entails the identification of risk, evaluation of the impacts, and the recommendation regarding the approaches that should be adopted to help reduce the risk. The second section, risk mitigation, entails the prioritization, maintenance and implementation of suitable risk-reducing strategies as highlighted in the previous section, risk assessment. The final section, evaluation and assessment, lays emphasis on the continual of the process of evaluation, along with the significant factors for effective risk management program.

According to the Enterprise-wide Risk Management Guideline, as highlighted in Partnerships BC (2005), the process of risk management is based on eight sequential steps:

setting up the context, identification of the risk, risk analysis, evaluation and development of the risk mitigation strategy, risk quantification, and consultation and communication of the risk. The design of the risk management framework applied by the Standards Australia and Standards New Zealand (2005) is similar to the one that was adopted by the International Organization for Standardization (ISO/DIS 31000) (2008). This framework is comprised of five activities: establishing the risk context, the process of risk assessment, which entails risk identification, risk analysis, and evaluation; treatment of the risk; consultation and communication; and monitoring and control of the risk events. The five steps are further analyzed below:

#### 2.3.1.1 Communicate and Consult

The main aim of consultation and communication is to determine the person to be charged with the responsibility of risk assessments, which entails the identification of the risk, analysis, and valuation and the person who would conduct the treatment, review and monitoring of the risk. However, according to the Standards Australia and Standards New Zealand (2004), these should be people who have a clear understanding of the grounds for decision making and the rationale as to why specific actions are needed.

#### 2.3.1.2 Establish the Context

Establishing the context allows the organization to define the specific factors that have to be considered while managing the risk. This also helps in setting up the risk criteria and scope for the remaining processes. Establishing the context is a process that requires precision, especially with regard to how it is linked to the scope of the specified risk management process (Standards Australia and Standards New Zealand 2004). The following process helps in establishing the context through which the identification of the risk could be attained:

- The external context, which is the external surrounding through which the organization intends to attain its goals and objectives
- The internal context that is the internal atmosphere in which the organization is operating
- The risk management context, which defines the scope, strategies, parameters and objectives of the organization's activities, or certain sections where the process of risk management is being, or should be implemented within the organization

- Develop evaluation criteria for the risk. These criteria should be applied in evaluating the importance of the risk and defining the acceptable risk levels for a specified event or activity and decide what should be considered as unacceptable.
- Define the risk analysis structure. This entails isolating the groups of risks that are managed. In addition, the risk analysis structure offers a accuracy and greater depth when it comes to the identification of significant risks.

#### 2.3.1.3 Risk Identification

This is a significant step in risk management process. It entails revealing and determining the potential risks that have a higher probability of occurring, along with other frequently occurring events. Essentially, a risk is examined by looking at the organization's major activities from various directions and trying to bring in the new exposure that will come up in the future by changing the external and internal environments. Accurate identification of the risk will actually result in effective risk management (Tcankova 2002).

#### 2.3.1.4 Risk Analysis

The process of risk analysis entails examining the potential effects of exposure and probability of a specific outcome to take place. The effect exposure should be viewed basing on the elements of quality, time, resource, and benefit. According to Standards Australia and Standards New Zealand (2004), risk analysis determines the likelihood and outcome of a negative impact and then determines the risk level by combining the outcome and the likelihood.

#### 2.3.1.5 Risk Evaluation

It is important that risk tolerance is considered before determining its probability. Organizations have to consider the level of risk they are able to tolerate and decide upon unacceptable or acceptable risk. However, it is essential to note that the acceptable level of risk is based on the level of voluntaries. The process of risk evaluation is significant as it generates adequate information that could be applied in the decision making process (Vrijling et al. 1995). Risk evaluation is all about making decisions regarding as to whether the risks are considered as acceptable or require treatment.

#### 2.3.1.6 Risk Treatment

The process of risk treatment entails the selection and implementation of the options that are aimed at tackling the identified risks. According to Standards Australia and Standards New Zealand (2004), some of the options for treating risks include: change the outcomes, change the probability of occurrence, avoid risk, retain risk and share risk.

#### 2.3.1.7 Monitoring and Review

This is an integral and fundamental step in the process of risk management. It is important that risks are monitored to ensure the constantly varying environment does not change the risk priorities and make sure the process of risk management is effective in both operation and design. Standards Australia and Standards New Zealand (2004) emphasize that organizations should conduct their reviews at least on a yearly basis. Basically, the risk management process indicates a cyclic nature of the process. In the following section the critical success factors that control the risk management procedures are analyzed, based on what other studies report.

### 2.4 Conceptual Frame work

Many literatures have been used as the basis of the primary research approach to study them in this research. Furthermore, by reviewing other literatures, will guide to have a validate and valuable research. Lots of researchers develop a conceptual framework to list possible courses of action. This research will have five factors which are going to be examined and they considered to be critical success factors when it comes to attaining effective risk management. Each of these factors are explained and used to prove to what extent they can effectively affect risk management in order to sustain as high competitor organization in the market. Thus, conceptual framework model has been developed to be tested and as part of the research. Figure below demonstrates factors which are used to examine the model and they are: Support and Commitment from the Top Management, Communication and Trust, Organizational Culture, Organizational Structure and Information Technology and Training.

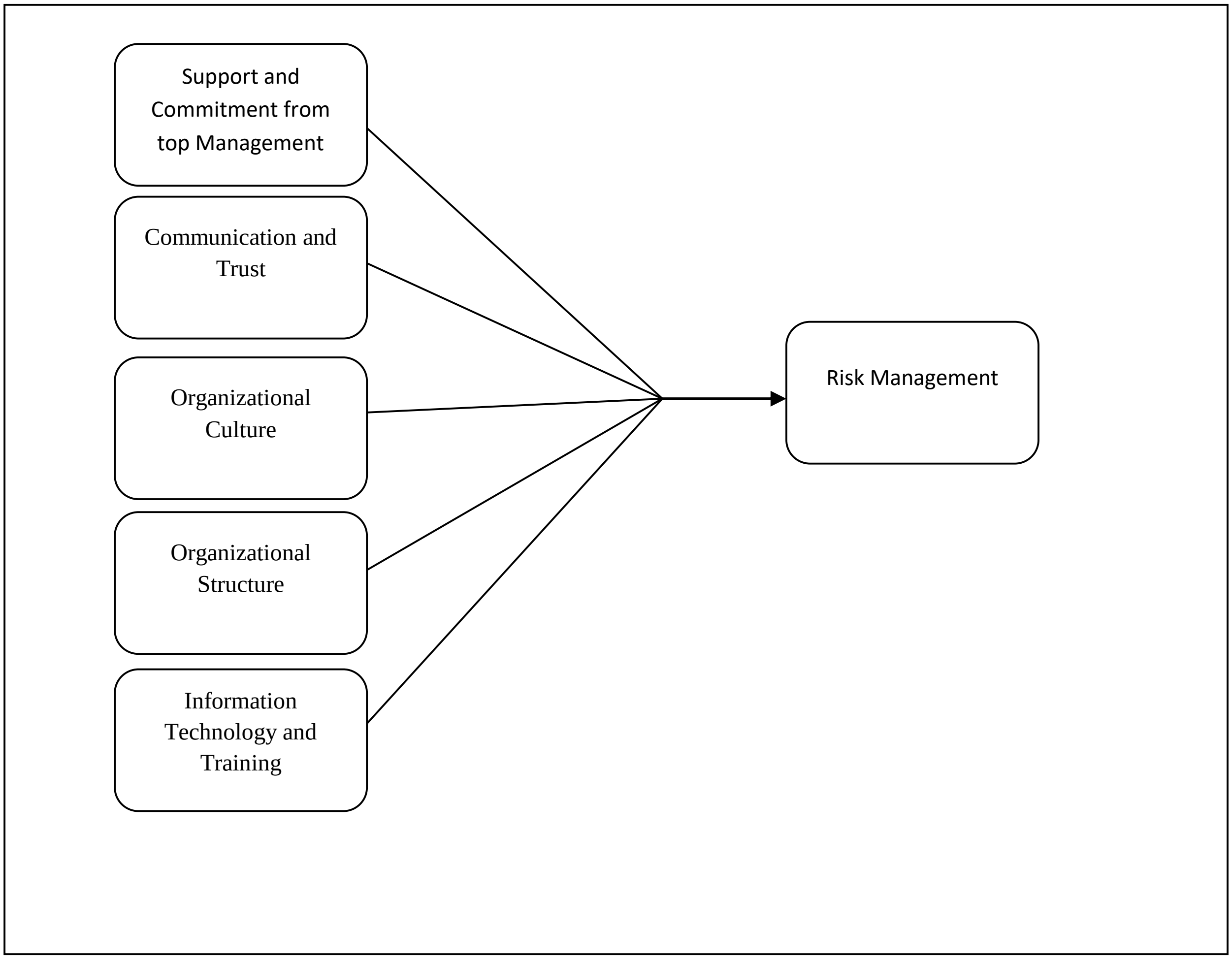


**Figure 1. Conceptual framework model**

### 2.4.1.1 Support and Commitment from the Top Management

A study conducted by Ifinedo, (2008) aimed at examining the effect of contingency factors, for instance, external expertise, business vision, and management support on the effectiveness of the organization. The findings of this study indicated that the organization's top management determines the level of success of any organizational system. Zwikael, (2008) argues out that the significance of the organization's top management support is most applicable when it comes to project management. It's also very essential to consider effective top management support for various project scenarios. The organization's top level management support involves a wide range of events and organizations, such as establishing project procedures, which entail the initiation stage, creating project management office, and training programs among many other activities. Furthermore, support and commitment from the top management plays a significant role in determining the success in almost all aspects and initiatives of the organization (Hasanali, 2002). This is because the organization's top management is a body that is charged with the responsibility of formulating and making decisions regarding the strategies and objectives for the activities concerning risk management, general objectives, and mission (Henriksen and Uhlenfeldt, 2006).

Galorath, (2006) argued that an organization employs risk management to predict the likelihood of an adverse effect and that risk management requires the support of the top-level management. However, it is worth noting that risk management needs a clear understanding that risks are real, thus the commitment to identify and address risks (Galorath, 2006). This emphasizes on the significant role of the top management support regarding risk management. The importance of support and commitment from the organization's top management ensures effective decision making process as far as risk management is concerned. Furthermore, it is worth highlighting that this is an important factor for almost all organizational initiatives, thus a significant factor for effective risk management as well.

#### 2.4.1.2 Communication and Trust

Numerous organizations concur that good communication is very important for the effective functioning of the organization. Different employees within the organization may have different opinions and views regarding different aspects of the organization, thus, an appropriate communication channel would ensure such opinions and views are conveyed across. Quirke, (1996) noted that internal communication within the organization helps to support the business strategy and enhance the performance as well as business processes. Communication is considered as a significant skill for the top management and leaders. Effective managers or leaders, good at communication have the capacity to set out clear mutual goals, objectives, and expectations for the organization. Clutterbuck and Hirst, (2002) emphasized that communication assures that team members support and understand not only the present position, but also their future.

Finniston, (1975) highlighted that the collection, storage, communication, and delivery of information in the broadest sense signifies business growth. Therefore, there is a constant urge for the communication managers to ensure employees are evaluated regarding the relevant occurrences both within and outside the organization. Good communication is a significant factor when it comes to attaining effective risk management. In their study, Grabowski and Roberts, (1999) noted that communication takes a significant role when it comes to risk mitigation. This is because it offers openings for clarification, for members to discuss how to enhance the operations of the organization, for discussing the progress of the organization, and for discussing the effect of adopting different strategies for risk mitigation. In addition, the communication process generates opportunities for members to acquire a clear understanding of their roles as well as responsibilities while the organizational structure changes. All members are involved in risk identification as well as risk assessment, which ensures that all members arrive at a same conclusion. Moreover, when all members have a clear understanding of the reason as to why risk management is essential for the organization; it becomes easy to attain effective risk management (Carey, 2001).

Trust is defined as the willingness of an individual to be susceptible to the actions of another individual depending on the expectation that the other will carry out the specific action essential to the trust or, regardless of the ability to control or monitor that other individual (Mayer et al., 1995). Trust has become a subject of interest in the study of organizations over the recent past. It is considered an important element as it generates a strong urge to understand how effective cooperation can be established within the organization. Tyler, (2003) emphasized that organizational success is linked to its ability to manage effective cooperation. This idea was supported by Pinto et al., (2008) who considered trust as a significant factor for project performance. Furthermore, trust helps to strengthen working relationships, enhances the willingness of the stakeholders to cooperate, and solidifies partnering roles (Erden, 2003).

Risk management is a process that calls for teamwork and cooperation to attain success. Trust among the members of the organization is a significant precondition to changing such related partnerships, hence mitigating risks, since the organization is willing to establish a partnership-like structure that can make them susceptible to the environmental fluctuations (McAllister, 1995). According to Grabowski and Roberts, (1999) trust enables members of the organization to concentrate on the mission. In essence, risk management involves activities that require share commitment that could be attained through trust within the organization. Therefore, one of the significant factors for proficient risk management is trust.

### 2.4.1.3 Organizational Culture

Various definitions of culture have been highlighted. According to Hofstede, (2001) culture refers to the collective programming of the mind, which helps to distinguish members of one category or group of people from the rest. He goes on to articulate that culture is composed on the patterns of values, feelings, thoughts, and ideas and is passed on by symbols a factors influencing bahaviour. Impacts of skills, attitudes, and beliefs influence actions, emotions, and thoughts.

Hasanali, (2002) defined culture as a combination of social customs, shared history, unwritten rules, and expectations that compel behaviours. Culture is a set of underlying beliefs that often control the perception of communications and actions of all employees. A situation that calls for cooperation to help solve a predicament, culture is often considered as a significant factor to help in learning from the mistakes and exchange organizational best practices. However, it is important to note that a supply chain is composed of numerous organizations and culture, thus establishing a single culture in such a case becomes tricky.

Mosadeghrad, (2006) looked at the impacts of organizational culture on the effectiveness of the management. This study found out that organizational culture contains significant impacts on the success of the management. A corporate and collaborative organizational culture has to be supported by team working, open communication, long-term management, risk-taking, collaboration, among many other factors (Mosadeghrad, 2006).  In addition, it is important that a strategic plan is established to act as a guideline for integrated and alignment within quality culture. A study conducted by Grabowski and Roberts, (1999) reported that risk management process requires a combination of various cultures that shape the system into an organized entity whereby the espoused values and deep assumptions of each organization can be established around the need for adopting a culture of reliability. In specific conditions, teamwork can adopt some behaviour through sharing personal beliefs, carrying out meetings, and seeking consensus to help the management to be effective.

The importance of organizational culture with regard to effective risk management concerns the fact that the transfer of knowledge demands that individuals convene to interact, share knowledge, and exchange ideas with others. In addition, culture gives rise to individuals who are constantly encouraged to come up with new solutions, ideas, and knowledge.

#### 2.4.1.4 Organizational Structure

According to Stank et al., (1994) organizational structure entails an internal pattern of relationships within the organization, communication and authority. It basically defines the lines of communication and authority, helps to distribute resources and tasks and offers a way of coordination. Hunter, (2002) emphasized that organizational structure establishes the authority to determine how the employees work. However, it is worth noting that organizational structure and processes are considered most significant when their design purposes are in line with their setting and contain benefits on the organization's strategies. Thus, one of the most significant factors when it comes to effective risk management is the organization's structure. Studies indicate that organizational structure offers the guideline, concept, support, and direction to the employees that are carried out by the steering committee (Hasanali, 2002). They teach and design employees to use and share a common vocabulary. Besides, the employees carry out their duties as a team so as to avoid a silo mentality and integrate resistant employees (Hasanali, 2002). However, it is important to note that outlining clear guidelines and objectives is essential for risk management (New South Wales Department of State and Regional Development, 2005).

Apparently, the financial and business world is undergoing through constant fluctuation. Environmental factors are constantly changing, while new developments are being generated which implies that the market is also going through the change process. It is therefore important that the organizational structure is regularly reviewed and adjusted to ensure it is adapted to the constantly changing market environments (Carey, 2001). It is the responsibility of the management to recommend policies that should be applied in managing the risks and ensure they are implemented (Carey, 2001). Grabowski and Roberts, (1999) highlight, that risk management is basically related to flexibility of the organization's structure. Responding quickly and through various approaches in light of the constantly changing environment is indeed considered as a flexible approach. DeLoach, (2004) emphasized that an effective enterprise-wide risk management process has to be instituted on a well-defined organizational structure.

#### 2.4.1.6 Information Technology and Training

According to Halliday et al., (1996) information technology is comprised of two elements: information systems in which the key business processes and functions are grounded on; and the computer technologies that support the distribution, processing and storage of the organization’s data and information. Organizations have to consider information technology as one of the most significant factors in the contemporary face of globalization, higher levels of performance, liberalization, and increased competition. Information technology plays a significant role in helping the organization attain its objectives. It relates to every aspect of the business processes, such as access to shared information which consists of performance management, human assets, resource allocation, knowledge, core competencies, communication support and project tasking (Mutsaers et al., 1998). A study conducted by Shin, (1999) aimed at examining how information technology can be applied to redesign business processes and enhance productivity and profitability. The findings of this study indicated that information technology relates to better information sharing, processing, fast responsiveness, and better coordination between the distinct organizational units as well as across organizations. Furthermore, information technology is related to a reduction in costs like documentation costs, decision information and monitoring costs. However, according to Xenomorph, (2007) effective risk management cannot be attained without effective information technology. Moreover, organizational activities and processes are such wide spread that it would be very daunting to share information and communicate without the presence of information technology (Hasanali, 2002). Rolland, (2008) highlights that information technology should be used to help drive effective risk management. This is because information technology can establish a significant relationship between corporate performance and risk management. In addition, it offers data security by the level of the employees, restricting access of the users by time, business activity, line of business, and individual risk. Informational technology tools obtain data applied in the past, thus, organizations can learn through their previous experiences and can prevent going through the same mistakes. Therefore, information technology is considered as another significant factor for effective risk management.

Most of the organizations today offer some form of training to their employees with the main aim of boosting their knowledge and skill levels to help attain success. While most of the organizations employ formal training processes, others consider employing external consultants to carry out the training programs (Hughey and Mussnug, 1997). However, it is important to note that the success of any training program is determined by a number of factors, including motivation, extensive use of peer groups and self-critiquing skills, high level of interactive learning, the application of mentorship programme during the training, continuous assessment, and availability of training manual (Moss, 1997). Apparently, the success of any organization is based on its employees or staff. It is very important for the staff to have appropriate skills that will enable them to take up their roles and responsibilities within the organization. Therefore, the process of staff training and development should be able to meet the organization's performance. According to Fill and Mullins, (1990) organizational training enhances skills, attitudes, and knowledge which in turn translate to increased job satisfaction, motivation, and confidence. Symons, (1995) noted that risk managers should establish training sessions for the staff members through the team of consultants concerned about risk management. The organization's capacity to respond to constantly changing conditions regarding its operations is linked to various activities such as the development of training courses relating to risk management and the interest of the staff to act in response to the early warning systems (Carey, 2001). However, according to the New South Wales Department of States and Regional Development, (2005) effective risk management should be considered as a significant element of the good business practice, which entails providing the staff with adequate training programs.

## 2.5 Need for More Research

Based on the review that has been provided above, it is important to note that there are specific areas that require more research. A number of studies have looked into critical success factors for effective risk management. However, most of the studies have been conducted for the general projects. This study seeks to examine how these critical success factors can be applied for effective risk management. It is also important to consider the degree of significance of each of these factors.

## 2.7 Study Hypotheses

A number of studies have been conducted regarding the critical success factors for effective risk management in the organization. However, it is worth noting that most of these studies have been conducted with regard to the general projects and different realms. This study seeks to examine whether these factors could be adopted and applied by organizations operating within the United Arab Emirates to ensure effective risk management. The hypothesis of this study is, therefore, based on the seven critical success factors for effective risk management as suggested by the previous studies.

- H1: Support and commitment from the top management is a significant success factor for effective risk management.
- H2: Communication within the organization is a critical success factor for risk management.
- H3: Organizational culture is a significant factor for effective risk management.
- H4: Organizational structure is a critical success factor for effective risk management.
- H5: Training is a critical success factor for effective risk management.
- H6: Information technology is a significant success factor for effective risk management.
- H7: Trust is a significant success factor for effective risk management.

# Chapter 3

## 3.0 Research Methodology

### 3.1 Introduction

This study explains the concept of risk management which is investigated via a literature review from books and journal articles. Furthermore, types of risk management have been listed and with detailed explanation of each type. In addition, numbers of factors that facilitate the risk management also have been introduced. In this study, implementation of risk management is considered as dependent variable, while each factor which facilitates the risk management considered as independent variable which are: Support and commitment from the top management, Communication, Organizational culture, Organizational structure, Training, Information technology and Trust.

This chapter basically provides the design and structure of the research. It provides details on how the data is collected, analysed, and presented. In addition, the ethical issues are outlined along with the limitations of data. Some of the issues that are examined include questionnaire design, sampling, pre-test, collection of data, and data analysis. The study analyses both the primary and secondary data. The secondary data is basically collected from books, journals, and articles with regard to the topic of the study. Essentially, the case studies will be analysed in the secondary sources to identify the critical success factors for effective risk management. Primary data is obtained through the use of questionnaires, which will be randomly distributed to the sampled respondents.

### 3.2 Research Approach

Two approaches, deductive and inductive, are most commonly applied in conducting research. The deductive approach is often considered to be a top-down approach considering the fact that one or more theories create a hypothesis and research aim at data collection. The research has to therefore test the hypothesis to examine whether it will be rejected or confirmed, which means that the theory will also have to be revised or confirmed (Bryman & Bell 2003). On the other hand, the inductive approach is seen as a bottom-up approach whereby some implication is inferred into the research findings, hence resulting into a theory (Bryman & Bell 2003). This study applies the deductive approach. A number of critical success factors, have been identified in the literature review section, which have been considered as the hypothesis for the study. Each of these factors is investigated to determine whether the study confirms or rejects it.

## 3.3 Data Collection

To generate data that would be analyzed in order to identify the critical success factors for effective risk management within the United Arab Emirates, a number of questionnaires were developed, each targeting different populations with the aim of identifying the success factors. The questionnaires were randomly distributed to the sampled population, and data was collected. The result of this analysis relies on the data set gathered in this research. Consequently, data gathering was one of the vital roles of this dissertation and took a great deal of time.

### 3.3.1 Selection of the Data Collection Method

Numerous methods have been provided by various authors that could be applied in collecting quantitative data (Churchill 1995). These include telephone interviews, e-mail surveys, mail surveys, personal interviews, and web surveys among many other forms. E-mail survey and web survey were rejected because of their technicality and because of the fact that challenges could be encountered while personalizing them (Churchill 1995). The study found that the most appropriate method for data collection was a survey. Some of the main benefits associated with surveys, according to Churchill (1995), include the fact that it is not a subject to bias from the interviewer, it assures the respondents anonymity, provides room for wider distribution the respondents can fill at their own pace best for more sensitive and personal questions. Despite the numerous benefits, survey consists of several disadvantages. According to Churchill (1995), surveys cannot be applied to obtain data from the illiterates, it does not provide the researcher with the opportunity to clarify ambiguous questions, cannot regulate the speed of the responses, and is hard to alter with the order of the questions. Furthermore, surveys have very little capacity to secure the specific individual responses (Churchill 1995).

The reason as to why this study preferred to use questionnaires was due to the fact that they are economical, reliable, and, at the same time, provide the respondents with adequate time to provide the required information (Churchill 1995). Moreover, questionnaires provide some privacy to the respondents, considering the fact that information can be treated as confidential (Churchill 1995). The questionnaires were mailed to the sampled respondents within the target population. It is worth noting that the cost and personalization factors were the major reasons as to why the mail survey data collection method was selected. Nonetheless, the highlighted disadvantages of the survey method were taken into careful consideration when the survey method was being deigned. The respondents were only required to fill out their positions within the organization, in order to ensure the anonymity of the respondents. However, it was expected that a lesser number of questionnaires would be mailed back since some of the respondents could disregard filling the questionnaires, or even consider the charges for mailing back. To counter such problems, a follow-up process was implemented to ensure they are filled, while the mail back charges were catered for to ensure a significant amount of the questionnaires were mailed back for analysis. Basically, the response duration was regulated, sending a reminder mailing after every two weeks. The data collection process was expected to take about two months, after that data was analysed to find out whether the research questions had actually been answered or not. A pretesting was also carried out to identify the ambiguous questions and determine if the order of the questions was right.

### 3.3.2 Questionnaire Design

This study basically applies the fixed-alternative questions. The questionnaires will consist of the dichotomous questions, the multichotomous questions, and some will be designed to scales. The questionnaire will be designed basically with the help of some questions sourced from the existing studies. When talking of the multichotomous question, this can be defined as a fixed alternative question, where respondents are allowed to select among various alternatives that have provided a response that most closely matches to their view of the subject under discussion. Dichotomous questions are also considered to have fixed alternatives, although they only have two alternatives from where respondents are expected to provide their views. Scale questions are used to determine the frequency of happening, as well as determining how much a respondent will either agree or disagree with the type or question being asked (Churchill 1995).

The questionnaire is divided into three parts. The first part is composed of the general information that seeks to examine the respondent's background. The second part analyzes each of the critical factors that ensure effective risk management, while the last part provides a ranking scale and precoding for the critical factors. A questionnaire sample is provided in the Appendix.

### 3.3.3 Sampling

Churchill (1995) highlights that when designing the sample that will be used in the study, it is important to specify the sample selection process, the sample size, as well as the sample frame. The sample frame is considered as the inventory of the population elements that will be applied in creating the sample. It is also important to bear in mind that sample selection process demands that the sample form be specified. A number of questionnaires have been designed each targeting specific people within the organization. The target group will be top-level management such as: managers, seniors, chief managers, and CEO as they are directly responsible for risk management.

### 3.3.4 Pretesting

Pretesting is done for the main reason of ensuring that the researcher's aims and expectations, with regard to the information that will be collected from the application of the questionnaires, are actually attained (Aaker and Day 1990). Churchill (1995) highlights that pretesting can be applied to evaluate individual questions along with their sequence. However, considering the fact that a pretest is a kind of pilot run, Aaker and Day (1990), assert that the respondents have to be composed of a significant proportion of the sample population. In addition, they should be comparable to those that will be applied in the real study (Churchill 1995). He goes on to argue out that the pretest should be carried out as a process comprising of the two stages. The first stage has to be conducted by personal interviews, not considering the method that will be used to collect the actual data. This will enable the interviewer to determine whether people still remember of the data demanded from them, or if some questions are ambiguous (Churchill 1995). Basically, it comes from the personal interview that the research will identify some of the words that need to be changed, as well as the order of the questions that could be changed or improved. The second pre-test has to be conducted in the same way as the actual study. This will actually help in revealing unique problems regarding the survey method. However, it is important to bear in mind that the responses that will be obtained from the pre-test have to be tabulated and coded. This will help in checking on the researcher's conceptualization of the problem under the study, and the method of data analysis required countering it (Churchill 1995). Despite the fact that the actual field survey is to be conducted through mail, Aaker and Day (1990) highlight that the pre-test has to be carried out with a telephone or personal interview in order to obtain the direct view on the problem under the study.

In this study, however, the main aim of the pretesting was to check and confirm the wording and order of the questions, considering the fact that the questionnaire was designed based on the previous studies. It was, therefore, necessary to determine whether the questionnaire would be able to acquire the needed data for this study. In addition, it was also important to consider the structure of the questionnaire. This was conducted through the telephone interviews, while the pretest questionnaires were sent to the respondents through email. The comments from the respondents were immediately received and recorded during the interviews. Issues to deal with the structure of the questionnaires were also discussed, which provided the basis under which some of the questions and statements were actually rectified. However, it is worth noting that no negative response was actually obtained during the data collection process.

### 3.4 Response Rate

Apparently, research indicates that one of the major problems in surveys is a non-response, considering the fact that those that opt to respond may actually differ considerably from those that opt not to respond (Churchill 1995). However, according to Aaker and Day (1990), this can be improved by employing a follow-up process. In addition, a stumped return envelope, along with a persuasive cover letter, could be sued to enhance the response rate. Furthermore, it can be noted that mail personalization ensures anonymity, while methods and colours of reproduction can actually enhance the response rate. To enhance the response rate, this study applied the following efforts;

- Phone calls were made to the respondents as pre-notifications. This aimed at ensuring that the questionnaire were directed to the correct respondents, while at the same time, the respondents were being asked for permission to fill the questionnaire. This made it easier to eliminate the most likely non-respondents.

- The respondents were also promised to get the summary of the study in the conclusion of the study.
- It is also worth noting that the follow-ups were done with new questionnaires two weeks after the first mailing.

A study of the non-response error was analyzed, and there was no bias recognized, considering the fact that some of the reasons provided by the non-respondents included lack of time, and in one, the right persons to fill out the questionnaires was not identified within the organization.

### 3.5 Data Analysis

There are different methods of data analysis depending on the relationship existing between the variables: the Univariate analysis, the Bivariate analysis, and the Multivariate analysis. This study will apply the univariate analysis, which refers to a single analysis at a time. The percentages and numbers produced were coded into the Statistical Analysis Program (SPSS) and Likert scale. This consisted of several distinct statistical tests and analyses. The descriptive analyses were first conducted in order to provide a description of the data. The data for this research is portrayed in form of bar graphs, tables and charts where necessary.

### 3.6 Reliability and Validity

Reliability is associated with whether the findings are stable or not (Bryman & Bell 2007). For this study, the sample selection is grounded on non-probability. The respondents were identified basing on their positions of power and responsibility within the organization. Moreover, the respondents were allowed to fill the questionnaires without unnecessary stress that would negatively affect the reliability of the research. It is possible to make a replica of this study and obtain consistent findings. Validity is often associated with the integrity of the conclusions that are reached at after conducting the research (Bryman & Bell 2007). It is important to note that a pilot study was conducted to ensure the questionnaires are acceptable and understandable. In addition, the collected data was analyzed through the SPSS for windows, which is perhaps the most widely applied computer software when it comes to quantitative data analysis. Therefore, this study can be considered to be highly valid.

### 3.7 Ethical Issues

There are several ethical issues, which were considered while designing and conducting this research study. First, it was important that permission be obtained from the participants. It is worth noting that each person is allowed to make a decision as to whether or not to take part in the study. This study, indeed, respected the decision of the participants, with regard to whether they were interested in taking part in the study or not. Besides, full disclosure of the type of the study, risks, and benefits was provided to the participants just to ensure their decisions to take part in the study were justified. Besides, the participants were offered with an extended chance to ask any questions regarding the study. Phone calls were therefore made to the participants asking for their consent to take part in the study. Privacy and confidentiality of the participants were ensured. With regard to the anonymity of the participants, the participants were not required to write their names in the questionnaire. The other significant ethical issue that was considered was the respect for the opinions of the participants. Therefore, the opinions and views provided in the findings section of this study represent the opinions of the participants, and not of the researcher. It is also worth noting that this study avoids plagiarism by acknowledging the work and contribution of other researchers and theorists accurately.

### 3.8 Data Limitations

The sample contains a small proportion of the institutions within the United Arab Emirates. However, it is worth pointing out that the findings of the study are grounded on the data obtained from the sampled respondents. This sample is selected due to the lack of stable and exact data and time. Therefore, this research gives a general rather than a profound idea about the critical success factors for effective risk management within the United Arab Emirates.

# Chapter 4

## 4.0 Empirical Findings

### 4.1 Introduction

The pervious chapter looked at the effect risk management on organization which has been carried out via numbers of literature reviews. Moreover, a brief description of methodology has been introduced plus a quantitative research methodology has been carried out for this study. This chapter examines the literature review outputs on risk management through obtaining data from members in the organization. After obtaining data, statistical analysis was performed develop reliable results and list a number of recommendations based on objective analysis.

The empirical data collected using the questionnaire is presented in this chapter. To begin, the percentage of each response is provided and a summary of the significance of each success factor. The final part provides a rank of the critical success factors for effective risk management.

### 4.2 Findings of the General Information

It is important to note that the study targeted the top-level management within the organizations sampled such as: managers, seniors, chief managers, CEO considering the fact that these are the people who are directly responsible for risk management. A total of 102 questionnaires were mailed back for analysis from various organizations. The findings of this study were processed using the SPSS program. To start, the demographic results are provided in order to display the general information regarding the sample.

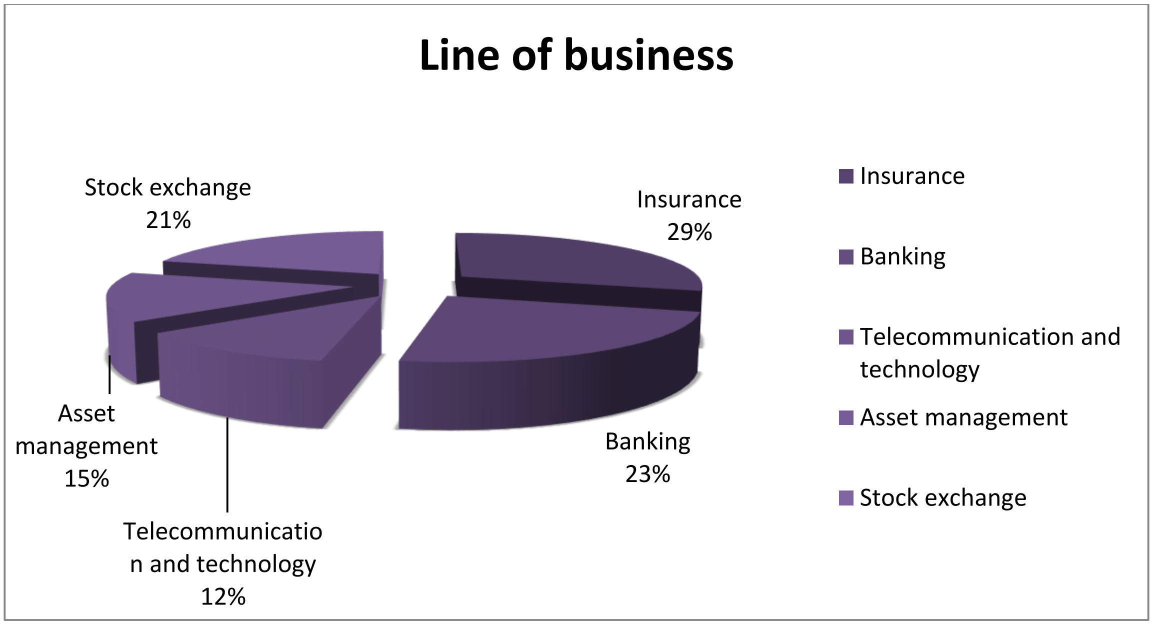


**Figure 2. Line of business**

This figure displays the percentage breakdown regarding the line of business of the respondents. However, it is apparent that most of the respondents, 29% work within the insurance sector, and the least, 12% work within telecommunication and technology. Basically, it is clear that the average number of respondents, considering each line of business, was adequate and practical for analysis.

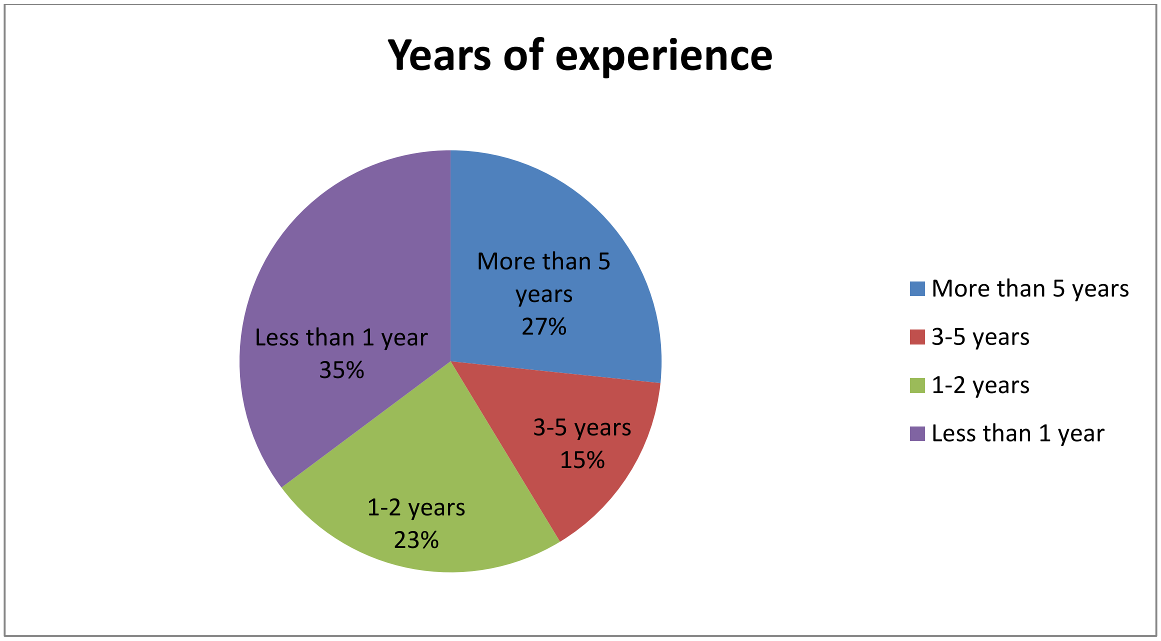


**Figure 3. Years of working with risk management?**

The pie-chart illustrates the percentage regarding the respondent's years of experience working with risk management. This question was basically asked for the purpose of understanding how experienced the respondents were as far as risk management is concerned. The findings display that 27 % reported having an experience with risk management for more than 5 years, while 35 % of the respondents had a working experience with risk management less than year.

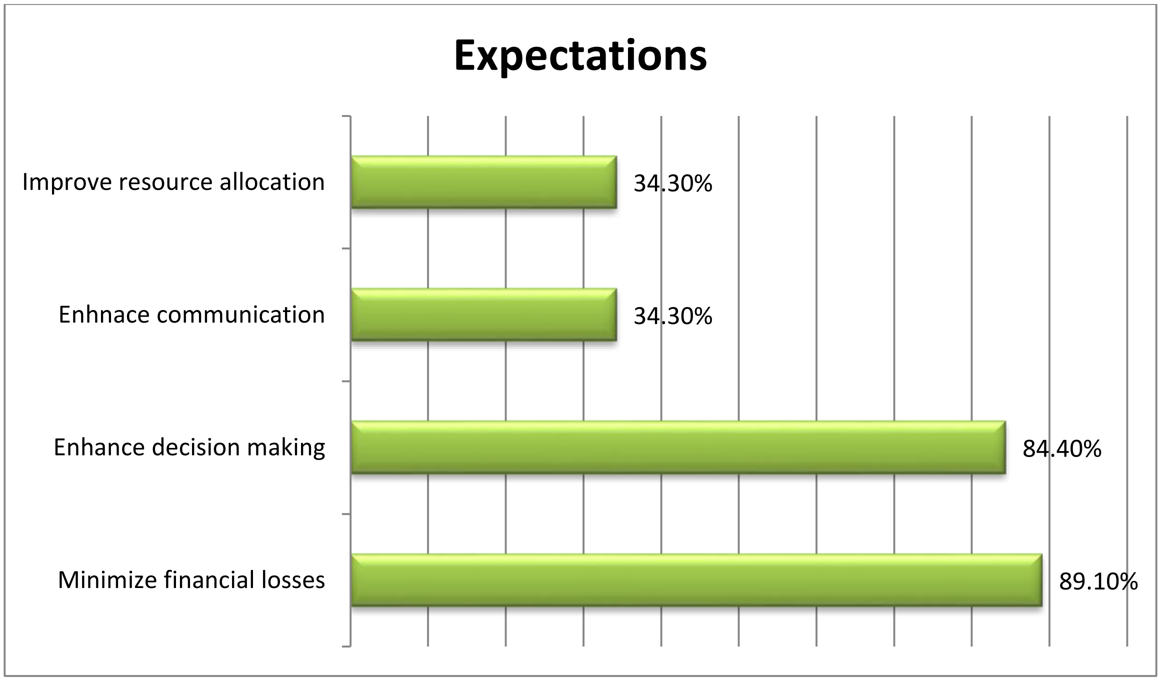


**Figure 4. Expectations of effective risk management within the organization**

The final question in the general information section required the respondents to provide their expectations regarding effective risk management within their organizations. This question was asked in an aim to determine how significant the respondents consider effective risk management is within the organization. From the results it is clear that 89.10 % expect risk management to minimize financial losses, while 84.40 % of the respondents expect that effective risk management will enhance the decision making process within the organization. 34.30 %of the respondents expect effective risk management to improve resource allocation and to enhance the communication process between stakeholders.

### 4.3 Findings Regarding Each of the Critical Success Factors

The second part of the questionnaire was divided into the seven key factors as identified in the literature, which include, support and commitment from the top management, organization structure, communication, organizational culture, information technology, training, and trust.

### 4.3.1 Support and Commitment from the Top Management

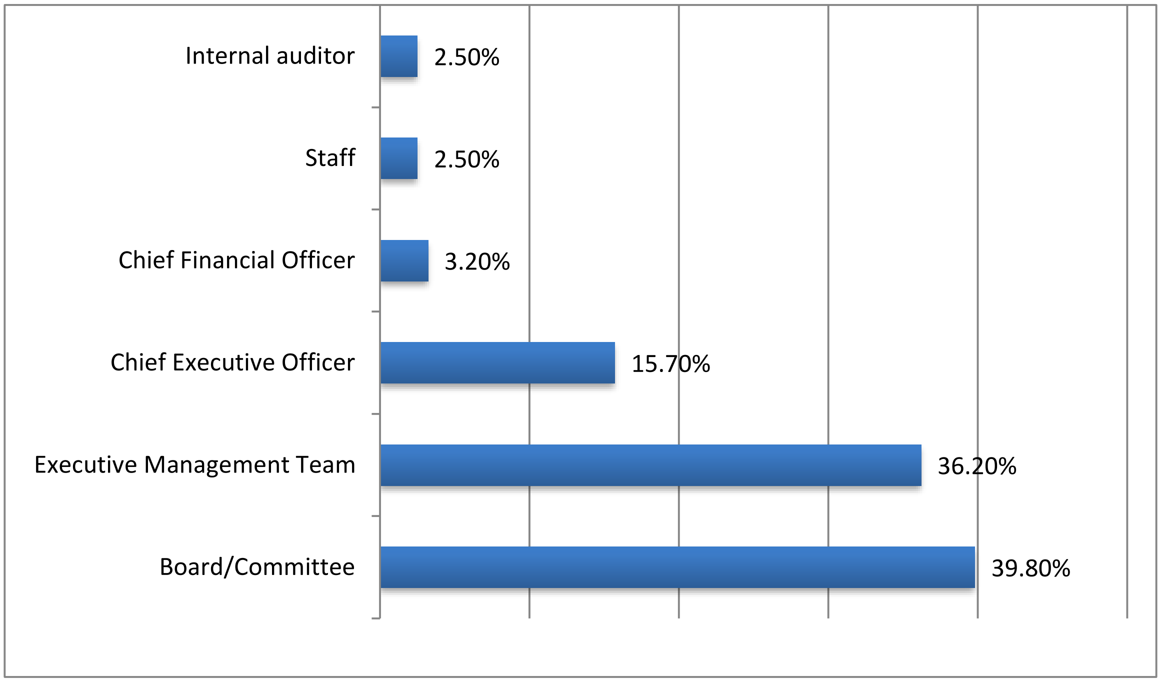


**Figure 5. Responsibility of establishing risk management within the organization**

In the beginning, the respondents were asked the question regarding support and commitment from the top management. They were required to identify the personnel in charge or risk management within their organization. It was apparent that the top-level management had authority and from the results, it can be noted that most of the respondents, 39.80 % agreed that the organization's board and committee are charged with the responsibility of establishing risk management. 36.20 % of the respondents specified that the executive management team had the authority, while 2.50% of the respondents believed the staff and internal auditor held the authority.

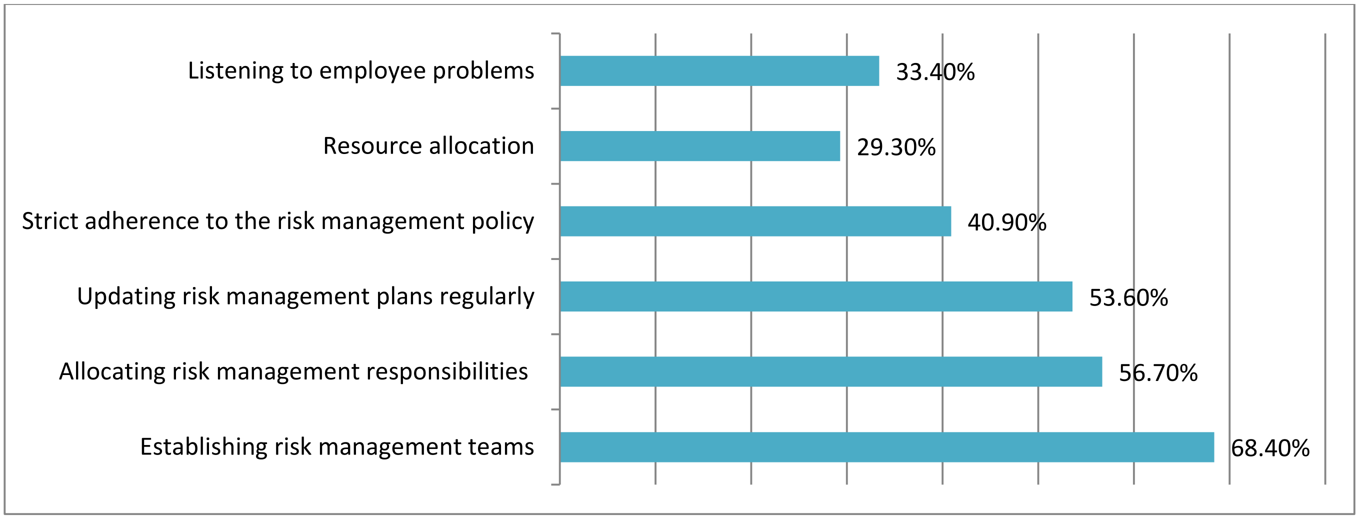


**Figure 6. Risk management policy in the organization**

This question was concerned with how the organizations supported their risk management policies. It is important to note that the respondents were required to choose multiple answers. The findings revealed that most of the organizations from which the respondent were drawn, established risk management teams 68.40 %. The results also illustrate that 56.70% of the organizations allocate risk management responsibilities, 53.60 % engage in updating the risk management plan regularly, 40.90 % adhere to the risk management policy strictly, 33.40 % listen to the employee problems, and 29.30 % allocate resources.

Respondents were required to either answer yes or no, regarding whether or not their organizations had policies that supported the development of risk management in future. The results indicate that 94 % chose yes, implying that the top level management is prepared to support the development of risk management policies within their organizations.

### 4.3.2 Organizational Structure

Respondents were required to either choose yes/no regarding whether or not their organization had a documented risk management policy or guideline in place. As displayed in the chart above, it is noted that 95.6% of the respondents agreed that their organizations had document risk management policies or guidelines in place, while 4.4% of the respondents replied, ‘No’.

In this question, respondents were also required to provide a yes/no response. The results show that 96.1% of the responds chose ‘Yes’ while 3.9% replied ‘No’ which means their organizations do not have risk management policies or guidelines are not in line with the objectives and goals of risk management.

The results illustrate that 95.1% of the respondents agreed they understood the risk management policy or guideline, while 4.8% replied that they have no understanding of the risk management policy or guideline.

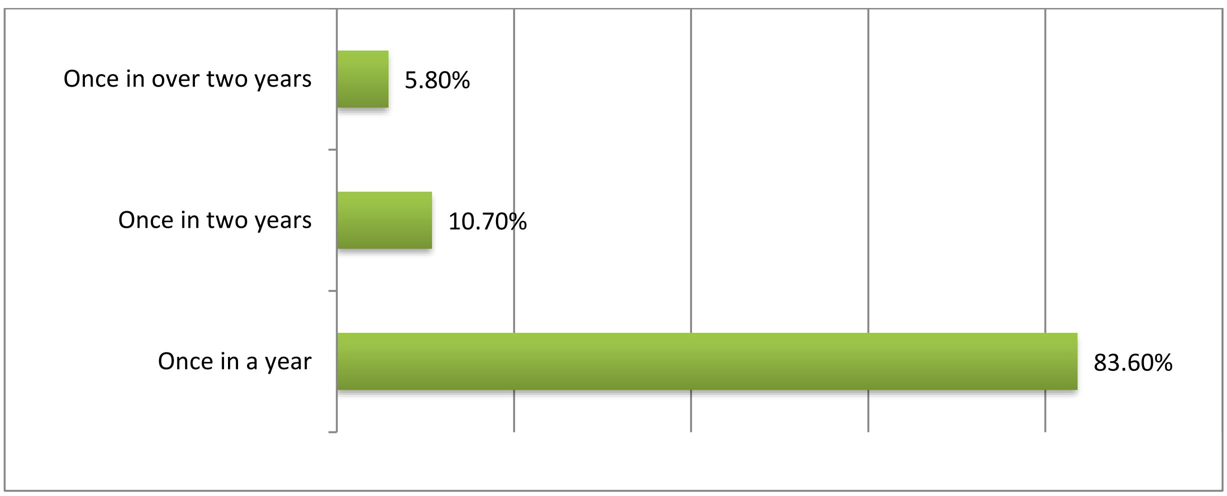


**Figure 7. Numbers of revising polices or guidelines to deal with risks**

The findings illustrate that most of the respondents 83.60% agreed that their organizations revised their policies or guidelines to deal with risks once in a year. 10.70% of the respondents answered that their organizations revised their policies or guidelines once in every two years, while 5.80% of the respondents had their organizations revise their policies or guidelines revised once in more than two years. This implies that a majority of the organizations believed that their organizations should revise their policies or guidelines once in a year to be able to deal with risks.

#### 4.3.3 Communication

In this factor, respondents were required to give the frequency with regard to the use of the communication approaches within their organizations. Whereby 5 represents Always, 4 = Very Often, 3= Fairly Often, 2 = Sometimes, and 1= Almost Never.

**Mean of using each of the communication approach**

| | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| **Meeting** | 102 | 3.8529 | .85749 | .14706 |
| **E-mail** | 99 | 4.5758 | .79177 | .13783 |
| **Telephone** | 99 | 3.6667 | 1.16369 | .20257 |
| **Bulletin board** | 99 | 2.6061 | 1.08799 | .18939 |
| **Memo/Fax/Note** | 99 | 2.9697 | 1.13150 | .19697 |
| **Face-to-face** | 99 | 3.5455 | 1.14812 | .19986 |

In this study, a point of 3 was set as an acceptable level. Therefore, if the mean value regarding the communication approaches being analysed is more than 3, then that is considered significant. Thus, Meeting, E-mail, Telephone, and Face-to face approaches are significant, while Memo/Fax/Note and Bulletin board are less significant.

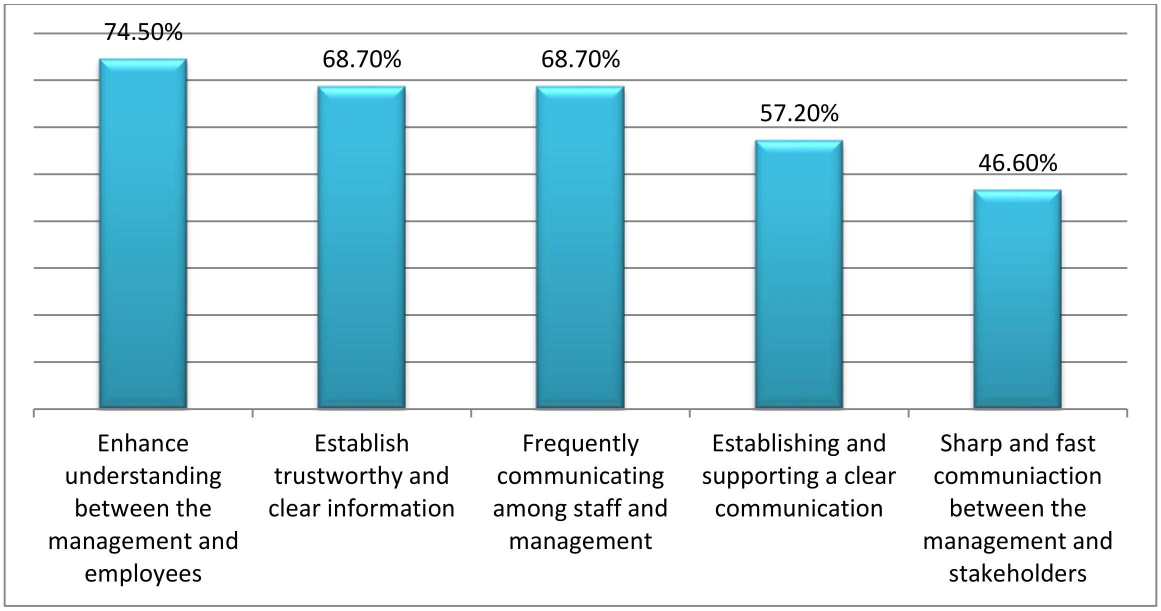


**Figure 8. Using communication to ensure effective reduction of risk**

This question was asked in an aim to determine the frequency with which the organizations communicate effectively as this is one of the key processes that facilitate the management of risks within the organization. Respondents were allowed to pick more than one answer, and the findings reveal that the most effective communication approach to minimize risks is through enhancing an understanding between the management and the employees, considering the fact that 74.50% of the respondents chose this answer. This means that a majority of the respondents believe that enhancing this understanding is the foremost priority for their organizations. On the other hand, sharp and fast communication between the management and stakeholders, received the lowest response, 46.60%, which means that this is perhaps not considered as the best way of communicating in order to minimize risks.

### 4.3.4 Organizational Culture

Regarding this factor, respondents were asked to show their level of agreement, whereby, 5 represents Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly Disagree.

| **Mean of level of agreement with reports regarding culture** | | | | |
|---|---|---|---|---|
| | N | Mean | Std. Deviation | Std. Error Mean |
| **Culture (1.1)** | 99 | 4.0606 | .74747 | .13012 |
| **Culture (1.2)** | 99 | 4.0909 | .76500 | .13317 |
| **Culture (1.3)** | 102 | 3.5882 | .89163 | .15291 |
| **Culture (1.4)** | 99 | 3.5758 | .86712 | .15095 |
| **Culture (1,5)** | 99 | 3.6667 | .69222 | .12050 |

Various reports were brought up regarding organizational culture, whereby 1.1 stands for ‘organizational collaboration is generated from a strong culture,1.2, information management and communication techniques are the most significant factors for the organization, 1.3, the existing organizational culture helps in developing risk management strategies, 1.4, the organization is willing to change its culture to incorporate risk management, and 1.5, culture change is acceptable if it is for the good of the organization’. A point of 4 was set as an acceptable level, thus, if the mean value is over 4, then that is considered as significant. From the findings, it is noted that the respondents agreed that organizational collaboration results from a strong culture, and information management and communication techniques are significant factors for the organization.

### 4.3.5 Information Technology

This is was also a key success factor that was analysed its significant as far as effective risk management within the organization is concerned. Two questions were asked regarding this factor.

The findings reveal that 92.30% of the respondents agreed that their organizations apply international frameworks, methodologies, or standards to protect their information. This implies that their organizations apply similar methodologies or standards with other states for protected information technology risk. However, 7.70% of the respondents replied that their organizations did not apply international frameworks, methodologies, or standards to protect information.

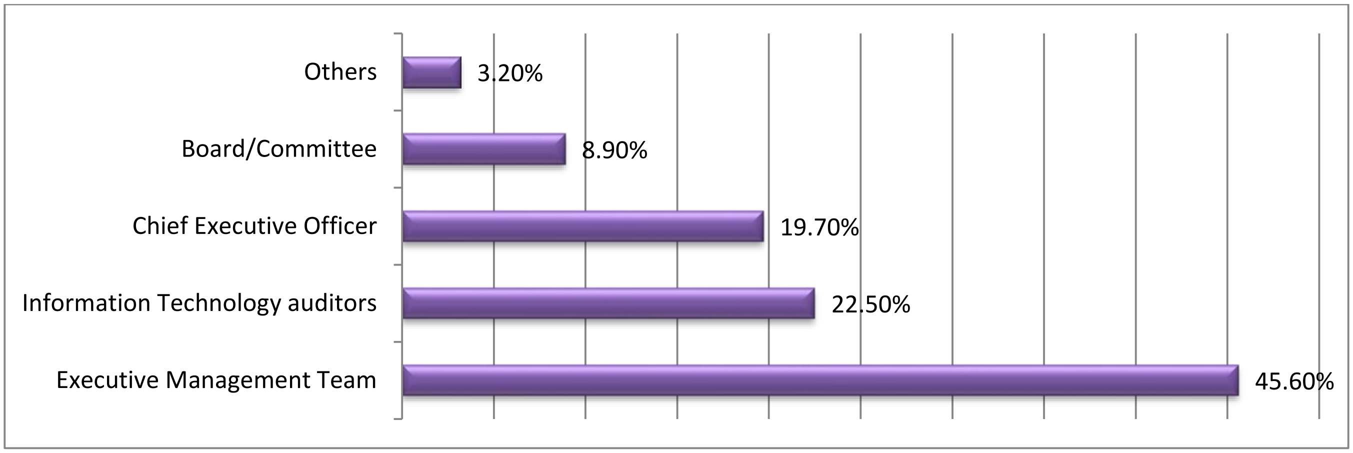


**Figure 9. Main responsibility of controlling and evaluating the risks of information technology within the organization**

As indicated in the chart above, 45.60% of the respondents replied that the executive management team has the responsibility, 22.50% believed that it was the information technology auditors, 19.70% was board or committee, 8.90% was for the Chief Executive Officer, while 3.20% replied with the option of ‘other’. Therefore, this implies that it is the organization’s top level management that is still charged with the main responsibility of controlling and evaluating risk management.

### 4.3.6 Training

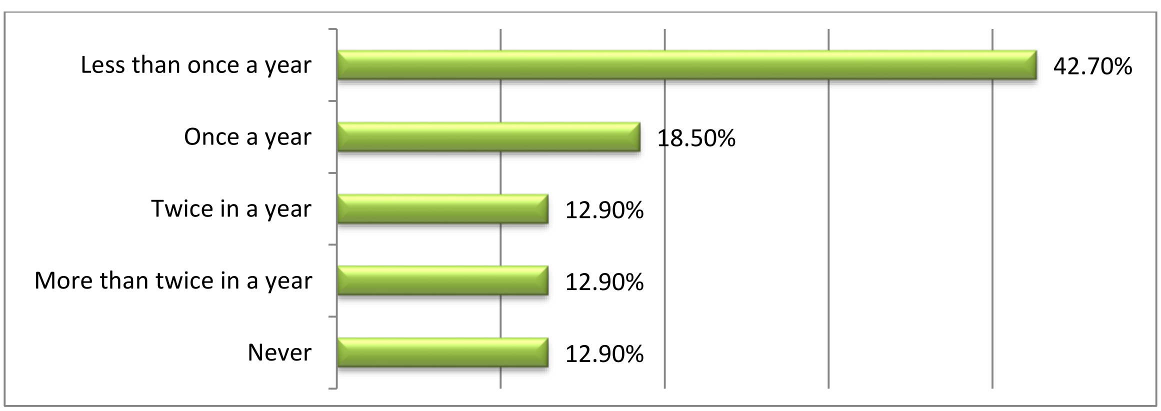


**Figure 10. Numbers of training courses related to risk management being offered within the organization**

The results regarding this question indicate that a majority of the respondents, 42.70% have their organizations conduct training courses related to risk management less than once a year. 18.50% of the respondents' organizations conduct risk management training courses once in a year, while never, more than twice a year and twice a year had a similar percentage, 12.90%.

Respondents were required to provide either a 'Yes' or 'No' response to this question. The findings as noted in the pie-chart above indicate that 93.1% of the respondents replied with a 'Yes' implying that their organizations have established procedures for ensuring their organization are updated and informed as far as amendments in regulations is concerned. On the other hand, 6.9% of the respondents replied with a 'No'.

This question also required respondents to give a yes/no response. The results indicate that 84.70% of the respondents' organizations offer training to their new employees, whereas 15.3% do not. This implies that most of the organizations deem the training of new employees as very significant.

**4.3.7 Trust**

To examine this factor, respondents were asked to show their level of agreement, whereby, 5 represents Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly Disagree.

| **Mean of level of agreement with statements regarding trust** | | | | |
|---|---|---|---|---|
| | N | Mean | Std. Deviation | Std. Error Mean |
| **Opinion** | 102 | 4.0882 | .45177 | .07748 |
| **Superiors** | 102 | 3.9412 | .48873 | .08382 |
| **Colleagues** | 102 | 3.9118 | .71213 | .12213 |
| **Subordinates** | 102 | 4.0000 | .65134 | .11170 |

For this factor, a point of 4 was set as an acceptable level, whereby, a mean of over 4 was considered as very significant. Therefore, basing on the results shown above, it is noted that respondents replied that they mostly trust their superiors and have a lot confidence regarding their opinions.

According to the results, 67.40% of the respondents deem trust as an important aspect within their organization, whereas 32.60% consider it to be critical.

### 4.4 Average Scores of Significance Regarding Each of the Success Factors

The study employed the use of questionnaires to determine the significance of the seven success factors. Respondents were required to indicate the significance of each factor by providing a rate, whereby, 5 = Very Important, 4 = Important, 3 = Neutral, 2 = Unimportant, and 1 = Very Important.

To determine the relationship between the respondents' line of business and the degree of significance of each of the success factors, a chi-square test was applied for independence, in an aim to examine if the line of business is linked to the rate of significance of each of the factor.

| **Rating Scale** | **Line of business** | | | | | | |
|---|---|---|---|---|---|---|---|
| | Insurance n (%) | Banking n (%) | Stock Exchange n (%) | Asset Management n (%) | Telecommunication and Technology n (%) | X2, df | p-value |
| **1. Top management** | | | | | | 1.86,4 | 0.81 |
| **-Very Important** | 10(45.5%) | 4(18.2%) | 1(4.5%) | 4(18.2%) | 3(13.6%) | | |
| **-Important** | 3(25%) | 2(16.7%) | 1(8.3%) | 4(33.3%) | 2(16.7%) | | |
| **2. Communication** | | | | | | 4.03,4 | 0.41 |
| **-Very Important** | 11(40.7 | 4(14.8 | 2(7.4%) | 5(18.5%) | 5(18.5%) | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | %) | %) | | | | | |
| **-Important** | 2(28.6%) | 2(28.6%) | 0 | 3(42.9%) | 0 | | |
| **3. Culture** | | | | | | 13.15,12 | 0.34 |
| **-Very Important** | 3(50%) | 1(16.6%) | 0 | 2(33.3%) | 0 | | |
| **-Important** | 10(43.5%) | 2(8.7%) | 1(4.3%) | 5(21.7%) | 5(21.7%) | | |
| **-Neutral** | 0 | 3(60%) | 1(20%) | 1(20%) | 0 | | |
| **4. Structure** | | | | | | 13.15,12 | 0.34 |
| **-Very Important** | 4(57.1%) | 0 | 1(14.3%) | 1(14.3%) | 1(14.3%) | | |
| **-Important** | 7(33.3%) | 4(19%) | 0 | 6(28.6%) | 4(19%) | | |
| **-Neutral** | 2(40%) | 2(40%) | 1(20%) | 0 | 0 | | |
| **-Unimportant** | 0 | 0 | 0 | 1(100%) | 0 | | |
| **5. IT** | | | | | | 5.75, 8 | 0. 74 |
| **-Very Important** | 3(42.9%) | 1(14.3%) | 0 | 1(14.3%) | 2(28.6%) | | |
| **-Important** | 9(39.1%) | 3(13%) | 2(8.7%) | 6(26.1%) | 3(13%) | | |
| **-Neutral** | 1(25%) | 2(50%) | 0 | 1(25%) | 0 | | |
| **6. Training** | | | | | | 13.87,12 | 0.30 |
| **-Very Important** | 5(83.3%) | 1(16.7%) | 0 | 0 | 0 | | |
| **-Important** | 5(27.8% | 2(11.1 | 1(5.6%) | 6(33.3%) | 4(22.2%) | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | ) | %) | | | | | |
| **-Neutral** | 3(33.3%) | 3(33.3%) | 1(11.1%) | 1(11.1%) | 1(11.1%) | | |
| **-Unimportant** | 0 | 0 | 0 | 1(100%) | 0 | | |
| **7. Trust** | | | | | | 11.89, 8 | 0.14 |
| **-Very Important** | 9(60%) | 2(13.3%) | 0 | 3(20%) | 1(6.7%) | | |
| **-Important** | 4(22.2%) | 4(22.2%) | 2(11.1%) | 5(27.8%) | 3(16.7%) | | |
| **-Neutral** | 0 | 0 | 0 | 0 | 1 | | |

The table above offers a summary of the chi square tests and crosstab analysis of the statistics obtained from the questionnaires. The alpha (α) denoted the significance level at 0.05. Thus, if the p-value is greater than 0.05, then the rating scale and line of business are independence. The SPSS results indicate that:

- Support and commitment from the organizations top level management score on the chi square was 1.86, while the p-value was 0.81 which is greater than 0.05. This implies that the line of business and the level of significance of support and commitment from the top level management are independence.
- The chi square score for communication was at 4.03, whilst the p-value was at 0.41which is greater than 0.05. This implies that no significant relationship exists between degree of how important communication is, and the line of business.
- Organizational culture was ranked at a value of 13.26 on the chi square while the p-value was at 0.10 which is also greater than 0.05.This illustrates that the level of importance of culture is not linked to the line of business.
- The chi square value for organizational structure was at 13.15 and its p-value was at 0.35 which was also greater than the alpha value. Therefore, the degree of importance attributed to organizational structure is not in any way related to the line of business.

- Information technology had a chi square score of 5.75 while its p-value was at 0.74 which is greater than the significant level. This is a proof that the level of important of information technology and the line of business are independence.
- Training had a chi square score at 13.87 and its p-value was at 0.30 that was greater than the level of significance. This indicates that the degree of importance of training is not related to the line of business.
- Trust had a chi square value of 11.89 and its p-value was 0.14 which is greater than 0.05. This means that the level of importance of trust and the line of business are independence.

Thus, the line of business, which includes, Insurance, Banking, Stock Exchange, Asset Management and Telecommunication and Technology, has been proven by the study not to have a relationship with the level of importance of the seven key success factors for effective risk management.

| **Average scores of significance of each of the success factors** | | | | |
|---|---|---|---|---|
| | N | Mean | Standard Deviation | Standard Error Mean |
| **Communication** | 102 | 4.7941 | .41043 | .07039 |
| **Top management** | 102 | 4.6471 | .48507 | .08319 |
| **Trust** | 102 | 4.4118 | .55692 | .09551 |
| **Information Tech.** | 102 | 4.0882 | .57036 | .09782 |
| **Culture** | 102 | 4.0294 | .57658 | .09888 |
| **Structure** | 102 | 4.0000 | .69631 | .11942 |
| **Training** | 102 | 3.8529 | .74396 | .12759 |

A mean value of 3.5 was set up as an acceptable level, thus, if the mean value is greater than 3.5, that is considered as a significant success factor for effective risk management. The mean value for communication was at 4.7941, support and commitment from the top management was at 4.6471, trust was at 4.4118, information technology was at 4.0882, culture was at 4.0294, structure was at 4.0, and training was at 3.8529. The results indicate that the seven critical factors are significant for risk management. This was also confirmed by testing the hypothesis.

| **Testing the hypothesis** | | |
|---|---|---|
| **H1** | Support and commitment from the top management is a significant success factor for effective risk management. | Confirmed |
| **H2** | Communication within the organization is a critical success factor for risk management. | Confirmed |
| **H3** | Organizational culture is a significant factor for effective risk management. | Confirmed |
| **H4** | Organizational structure is a critical success factor for effective risk management. | Confirmed |
| **H5** | Training is a critical success factor for effective risk management. | Confirmed |
| **H6** | Information technology is a significant success factor for effective risk management. | Confirmed |
| **H7** | Trust is a significant success factor for effective risk management. | Confirmed |

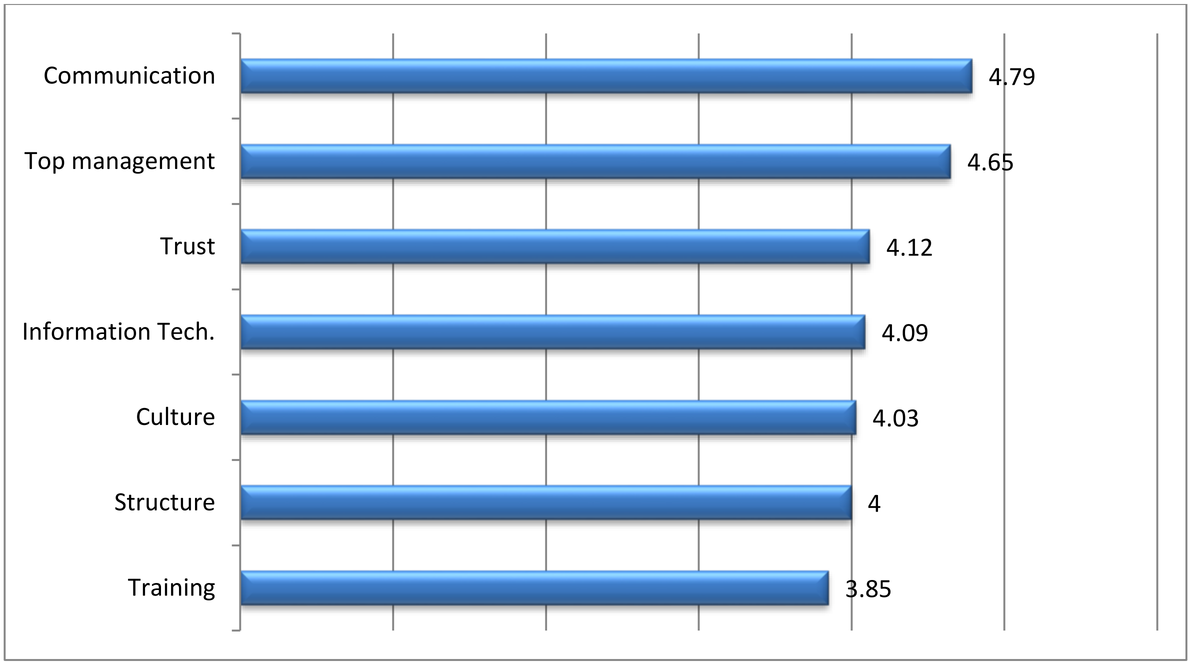


**Figure 11. Significant Rates of the factors**

The respondents considered all the seven factors significant when it comes to risk management. However, basing on the findings of the study, the significance of these factors can be classified into three groups. In the first group, the critical factors are enlisted which include communication and support and commitment from the top management. The second group contains the medium factors which include information technology, trust, organizational structure, and organizational culture. The third group enlists the less critical factor, which is training.

## 4.5 The Ranking of the Seven Success Factors

In the questionnaire respondents were also required to rank the seven critical success factors basing on the degree to which they influence effective risk management, whereby 1 represents the most influencing, while 7represents the least influencing. A summary of the findings is shown in the table below.

| Scores | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Training | Culture | Structure | Trust | IT | Communication | Management |
| **Mean** | Valid | 102 | 102 | 102 | 102 | 102 | 102 | 102 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Sum** | | 180.00 | 162.00 | 160.00 | 158.00 | 139.00 | 86.00 | 67.00 |

This table illustrates the scores of the success factors, with Training =180, Organizational culture =162, Organizational structure =160, Trust =158, Information technology =139, Communication = 86, and Support and commitment from the top management = 67. Basing on these figures, the seven critical success factors were analyzed and rearranged starting from the most influencing factor to the least. The ranking of the seven factors if illustrated in the table below.

| Success factors | Ranking |
|---|---|
| **Support and commitment from the top management** | 1 |
| **Communication** | 2 |
| **Information Technology** | 3 |
| **Trust** | 4 |
| **Organizational structure** | 5 |
| **Organizational Culture** | 6 |
| **Training** | 7 |

## 4.6 Correlation test:

The correlation test was done to measure the relationship between each independent variable and dependent variable. The Table below shows the result of correlation test between each independent variable: Support and commitment from the top management, Communication, Organizational culture, Organizational structure, Training, Information technology and Trust and dependent variable which is risk management.

| | | TRUST | COMMUNICATION | Training | Top Management | Structure | Culture | IT |
|---|---|---|---|---|---|---|---|---|
| Risk Management | Pearson Correlation | .519** | .636** | .585** | .695** | .533** | .201* | .373* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | 60 |

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

*. Correlation is significant at the 0.05 level (2-tailed).

**Table 1: correlation test**

The relationship between support and commitment from the top management, Communication, organizational culture, organizational structure, training, information technology and trust and risk management were investigated using correlation coefficient as shown in the table above. First let's focus on relationship between trust, communication, training, top Management and structure towards risk management. From table 1, it has been found that there is strong positive and significant correlation between trust, communication, training, top Management and structure towards risk management. However, Top management has the highest coefficients correlation towards risk management with value of 0.695. The second highest coefficients correlation towards risk management goes to communication with value of 0.636. Training has the third highest coefficients correlation towards risk management with value of 0.585. The Fourth highest coefficients correlation towards risk management goes to organization structure with value of 0.533. Trust has the fifth highest coefficients correlation towards risk management with value of 0.519.

However, it has been found that there is weak and significant correlation between organization culture and IT towards risk management. There is weak correlation between IT and risk management with value of 0.373. Organization culture is considered as second weak and significant correlation towards risk management with lowest coefficients value of 0.201. These findings support hypotheses 1, 2, 4,5, and 7.

## 4.7 Regression Test:

The regression test was performed in order to test the sensitivity of the risk management dependent variables towards independent variables which are support and commitment from the top management, communication, organizational culture, organizational structure, training, information technology and trust. As shown on the result of this test, it is possible to get high collinearity when performing a linear regression analysis across all independent variables.

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .823[a] | .678 | .655 | .39212 |

**Table 2: Regression Model Summary (Risk Management)**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 17.470 | 5 | 3.494 | 22.723 | .000[a] |
| | Residual | 8.303 | 54 | .154 | | |
| | Total | 25.772 | 59 | | | |

**Table 3: ANOVA (Risk Management)**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.248 | .296 | | -.839 | .405 |
| | TRUST | .390 | .117 | .321 | 3.564 | .001 |
| | COMMUNICATION | .385 | .177 | .252 | 2.168 | .035 |
| | IT | .457 | .152 | .295 | 3.030 | .004 |
| | ORGANIZATION STRUCTURE | .495 | .187 | .338 | 2.786 | .007 |
| | TRAINING | .395 | 165 | .256 | 2.178 | .002 |
| | SUPPORT AND COMMITMENT | .360 | .175 | .275 | 3.020 | .038 |

**Table 4: Coefficients (Risk Management)**

Table A shows that 65.5% of the variation in risk management can be explained by the variability of in the independent variables studied. Moreover, there was collinearity issue which is organizational culture. So by taking out this variable, Table B illustrates there is no issue for collinearity. ANOVA value is significant, hence this illustrates that it is significantly safe to study the results of the sample for the whole population. As shown in Table C illustrates that Beta values for all independent variables are significant. It is also noticed that the organizational structure has the highest and significant Beta value of 0.338. This means that organizational structure variable has strongest unique contribution to explaining the dependent variable which is risk management. The second highest and significant Beta value is trust with value of 0.321. This implies that trust makes the second highest and strongest contribution to explaining the dependent variable which is risk management. IT is considered as third highest and significant variable with value of 0.295. This shows that IT variable makes the third strongest to explaining the dependent risk management. Support and commitment is considered as the fourth highest and significant variable with value of 0.275. This shows that Support and commitment variable makes the fourth strongest to explaining the dependent risk management. Training is considered as fifth highest and significant variable with value of 0.256. This shows that IT variable makes the fifth strongest to explaining the dependent risk management .Finally, communication is considered as the lowest and significant variable amongst others with value of 0.252. This means that communication variable has the least affect to explaining the dependent variable risk management.

The outcome of regression analysis of risk management emphasis on correctness and acceptance of following hypotheses:

- H1: Support and commitment from the top management is a significant success factor for effective risk management.
- H2: Communication within the organization is a critical success factor for risk management.
- H4: Organizational structure is a critical success factor for effective risk management.
- H5: Training is a critical success factor for effective risk management.
- H6: Information technology is a significant success factor for effective risk management.
- H7: Trust is a significant success factor for effective risk management.

Hence, it can be argued that risk management is more sensitive to organizational culture role than rest of linearity independent variables (trust, communication, training, IT and support and commitment).

# Chapter 5

## 5.0 Discussion

## 5.1 Introduction

In this research study, the relationship between each independent variable and risk management has been conducted and studied via literature review. According to the findings, a number of hypotheses have been developed via literature review to confirm and validate the concept of risk management.

The aim of this chapter is to provide an analysis and discussion of the issues found within the research as it seeks to give answers to the research questions and attaining the goal of the study. In this chapter an analysis and ranking of the seven critical success factors is provided along with other factors identified during the research.

## 5.2 Risk Management Procedures

Risk management is a field that has gained a lot of interest over the recent past considering the fact that it impacts on the organization's performance. Therefore, most of the organizations agree that effective risk management procedures are significant. It is expected that effective risk management would result to increased profit, enhanced decision making, and reduced financial losses. According to Anderson and Terp (2006), the main goal of risk management is to make the most out of the potential of success and reduce the likelihood of future losses. This is also expected to enhance resource allocation and the process of communication among stakeholders. In addition, the respondents highlighted that effective risk management can lead to a decline in compliance and regulatory risks.

## 5.3 Critical Success Factors

The importance of each of the factor is discussed below.

### 5.3.1 Support and Commitment from the Top Management

According to the findings of this study, it is apparent that respondents identified support and commitment from the top management as the most significant factor. Being charged with the main responsibility of responding to the business processes, the top level management is also responsible for managing risks. In most organizations, it is believed that the Executive Management team, Chief Executive Officer, or the Board of Directors hold that responsibility. The top level management makes the final decision regarding the strategies and objectives for organizational risk management activities and overall goals. However, during the study, respondents suggested that there are numerous ways through which the organization's top management can strengthen the risk management policy. For instance, they can establish specific risk management teams, update risk management plans on a regular basis, ensure strict adherence to the risk management policy, allocate risk management responsibilities, listen to employee problems, and allocate correct resources.

### 5.3.2 Communication

Communication is considered as one of the most important factors when it comes to risk management. According to Clutterbuck and Hirst (2002), effective managers or leaders who are considered to be good at communication have the capacity to clearly establish mutual expectations. Indeed, this is considered an important skill for the top level management and leaders as it enables them to interact and share information with the rest of the staff. However, considering the fact different employees have diverse views and opinions, it is through discussion that they can share their views and reach mutual conclusions. A number of approaches are applied in communication, for instance, face-to-face, e-mail, telephone, meetings, and memos/faxes/notes. Bulletin boards are also applied sometimes. However, it is important to note that communication creates room for clarification, analyzing the progress of the organization, and for its members to identify strategies for improvement as well as risk mitigation (Carey 2001). The respondents believed that establishing an understanding between the organization's management and its employees, regular and clear communication, and sharp and fast communication, ensures effective risk management.

### 5.3.3 Information Technology

This is one of the top priority factors when it comes to effective risk management, basing on the findings of this study. Apparently, most of the organizations are rated as large scale and it is through the adoption of information technology infrastructure that they are able to share information and communicate (Hasanali, 2002). The use of information technology within the organization can facilitate access and retrieval of critical data, enhance the process of communication, and provide room for prompt searches. According to Rolland (2008), information technology tools help in collecting data that had been previously used to enable organizations learn through their experiences while avoiding indulging in similar mistakes. Moreover, information technology offers data security by the employee level, restricting access to users by time, business activity, line of business, and personal risk. However, it is worth highlighting that most of the organizations apply the international frameworks, methodologies, or standards in protecting their information.

Basing on the findings of the study, it is important to highlight that in most of the organizations, it is the top level management that is charged with the key responsibility of evaluating and controlling the information technology risks. One of the respondents highlighted that at times information technology managers may divide this responsibility, though the ultimate report has to be sent to the Chief Executive Officer. It is also important to highlight that information technology is closely associated with almost all aspects involved in the business processes, involving access to the organization’s share infrastructure comprising of core competencies, knowledge, performance management, communication support, human assets, project tasking, and resource allocation (Mutsaers 1998).

### 5.3.4 Organizational Culture

Organizational culture is one of the critical success factors for effective risk management as has been proven by this study. While culture encourages employees to work more, it also allows them to work more efficiently. Collaboration within the organization is said to originate from a strong culture. According to Mosadeghrad (2006), a corporate and collaborative organizational culture should be supported by open communication, team work, long-term management, and risk taking. In addition, organizations should take part in information management and communication techniques in order to maintain a strong culture. It is through their existing culture that organizations are able to establish and implement effective risk management strategies.

It is also important to highlight that some respondents noted that their organizations were more willing to revise and update their existing culture in order to provide room for risk management development. As noted by Grabowski and Roberts (1999), the concept of risk management calls for a combination of various cultures that make the system into a cohesive whole where espoused values and deep assumptions of all member organizations, can be established around the need for developing a culture of reliability. Team work can also develop specific behaviors through sharing personal beliefs, seeking consensus and engaging in meaningful discussions that will help the organization deal with important aspect such as risk management (Grabowski & Roberts 1999).

### 5.3.5 Trust

Trust is an important factor when it comes to effective risk management considering the fact that it often generates a strong desire to understand how to establish effective cooperation in the organization (Tyler 2003). It is important to note that the success of a project performance, as well as that of the entire organization is grounded on the ability to develop effective cooperation (Pinto, et al. 2008). Trust enables he members of the organization to focus on its mission, unregulated by doubts regarding the roles and responsibilities of other members (Grabowski and Roberts 1999). Respondents highlighted that trusting and their superiors and feeling confident while providing their ideas and opinions is very important for effective running of the business. Furthermore, the respondents highlighted that the aspect of trust within the organization can be enhanced through sharing information and resources, and displaying good intent behavior. However, considering the fact that risk management engages in various aspects that call for share commitment, it is important that trust is enhanced through subordinates and colleagues.

### 5.3.6 Organizational Structure

Organizational structure entails its internal pattern with regard to communication, authority, and relationships. The structure is made up of formal lines of communication and authority, and information along with the data that flow along these lines (Stank et al. 1994). Hunter (2002) highlights that, the processes and structures of the organization are the most significant aspects, especially when their design function is in line with the strategies and the environment in which the organization is operating. The respondents highlighted that their organizations have in place documented policies or guidelines for risk management. They also believed that these policies or guidelines were in line with the objectives and goals of risk management. Basically, organizational structure establishes the direction, guidelines, support and concepts to the employees that are steered by the top management. Respondents further highlighted that they understood the risk management policy or guideline, an aspect that is very critical as far as effective risk management is concerned.

However, it is important to note that organizational structure has to be updated on a regular basis to allow it adopt and deal with the changing business environments (Carey 2001). As the business environment changes, so are the risks in which the organizations are exposed, thus, it is very essential that the organization keeps up-to-date with such changes and makes changes to its policies or guidelines to allow it manage risks. Basing on the findings of the study, it is worthy highlighting that most of the organizations update their policies or guidelines on annual basis. As noted by Grabowski and Roberts (1999), risk management is basically associated with the flexibility of the organizational structures. It is very important to adopt an approach that will enable the organization respond quickly and through various ways.

### 5.3.7 Training

As part of a good business practice, staff training ensures effective risk management. The main reason for training and education is to ensure that the staff is comfortable with the organizational system, and boost the knowledge and expertise of the staff. Apparently, it is noted that most of the organizations are today proving their employees with training programs. As noted by Fill and Mullins (1990), training helps in enhancing the attitudes, skills, and knowledge, which in turn translates to increased levels of confidence, job satisfaction, and motivation.

It is important to note that the capacity to act in response to the fluctuating conditions in which the organization is operating is associated with various activities including the establishment of training courses that are related to risk management as well as early warning systems (Carey 2001). The respondents in this study highlighted that their organizations maintained established procedures that ensure the organizations are informed and updated regarding the changes that are taking place. Furthermore, respondents highlighted that their organizations offer risk management training courses on annual basis, while others even offered more than just once a year.

Other factors that could be adopted to ensure effective risk management were suggested by the respondents, and include positive thinking which provided motivation to the staff t o attain the set goals, team work and coordination, which in the study could be considered as sub-factors under trust and culture.

# Chapter 6

## 6.0 Conclusion

The contemporary business environment is uncertain and is constantly changing, which makes it risky for businesses and organizations to operate. For this reason, most of the organizations are emphasizing on the significance of risk management. Furthermore, effective risk management is an important business aspect as it enhances the project success. The International Organization for Standardization (ISO/DIS 31000) (2008) and the Standards Australia and Standards New Zealand came up with a framework for risk management. The risk management process entails the identification of risks, risk analysis and evaluation, treatment of risk, consultation and communication, and controlling and monitoring the risk events.

The main aim of this research was to examine the significant success factors for effective risk management in the United Arab Emirates. Previous studies have enlisted some of the critical success factors for effective risk management. These factors were used to come up with the hypothesis of this study. The factors were therefore tested in an aim to answer the research question for this study, which was "What are the significant success factors for effective risk management in the United Arab Emirates?" A quantitative approach was applied in data collection whereby questionnaires were developed and distributed to sampled respondents, targeting the top level management within the organization considering the fact that these are the people who are charged with the main responsibility of controlling and managing risks in the organization. A total of 102 questionnaires were mailed back for analysis and discussion. The seven critical factors were each analyzed in an aim to examine how they influence risk management. Basing on the findings of the study, the seven critical factors for effective risk management, ranked considering the most important include:

- Support and commitment from the top management;
- Communication;
- Information technology;
- Organizational culture;

- Trust;
- Organizational structure;
- Training.

The findings of the study offer an answer to the research question while confirming that the seven significant success factors are acceptable. This therefore implies that the significant success factors for effective risk management in the United Arab Emirates include, support and commitment from the top management, communication, information technology, organizational culture, trust, organizational structure, and training. Indeed, these are the factors that are considered and have been proven by this study to enhance the effectiveness of risk management procedures within organizations, basing on the views and opinions of the organizations in the United Arab Emirates.

It could be argued that risk management is today considered necessary for most organizations. However, what is important to note is the fact that without a risk management plan, organizations engaging in a competitive disadvantage, which has the potential of generating business failures. It is important to note that having a risk management plan in place does not actually imply a total mitigation or avoidance of risks, but creates room for a balance of risks to ensure the organization is in a place to deal and manage the risks it is likely to encounter.

**6.1 Theoretical Implications**

According to this study, it is worth highlighting that the most effective risk management procedures are those that are defined by Standards Australia and Standards New Zealand, (2004) and recognized by the International Organization for Standardization (2008). The seven critical success factors for effective risk management are grounded on the previous studies that have been conducted in this field, and have also been tested and confirmed by the empirical findings of this study. Therefore, the seven critical success factors for effective risk management could be applied as the base on a theory concerning effective risk management procedures within organizations in the United Arab Emirates.

**6.2 Practical Implications**

Besides the theoretical implications, the empirical findings of this study also present some practical implications. The following practical implications have been suggested by the study for future studies involving risk management within organizations within the United Arab Emirates. It is therefore important to note that:

- To ensure effective risk management, cooperation and coordination from each level of the organization is a key factor.
- The definitions of all the critical success factors have been provided in the literature review, which organizations can apply to boost their levels of understanding and make appropriate use of the factors in their organizations.
- Support and commitment from the top management takes a leading role in ensuring effective risk management, which is related to the other factors.

It is important to note that the adoption and implementation of the seven critical success factors is very important if the organization seeks to ensure effectiveness when it comes to risk management. However, the most significant task organizations should consider in risk management entails ensuring effectiveness in decision making processes adopted that will enable their objectives to make the most out of the profits while minimizing future losses.

**6.3 Strengths and Weaknesses**

It is important to highlight the strengths and weaknesses of the study to provide a better understanding. One of the strengths regarding the study is that fact that the concept of risk management was defined in a simple way for better understanding. The study also provides a description of the risk management procedures through a step-by-step approach that gives a clear understanding of the subject. The methodology applied by the study is also simple, considering the fact that it obtains the views and opinions of the respondents regarding effective risk management procedures through the use of questionnaires. The findings of the study are illustrated using tables and charts that are easy to interpret. Furthermore, the set of the seven critical success factors are developed and grounded on a good theoretical basis. It is worth highlighting that the seven factors are based on the previous studies conducted regarding effective risk management. These formed the hypothesis of the study, which was tested and confirmed by the study.

Another key strength about this study is the fact that the empirical findings are based on the views of the respondents regarding their understanding of effective risk management within their organizations. The study targeted the top level management group within the organizations taking into account the fact that these are the people who are charged with the responsibility of controlling and managing risks, thus, have a good understanding of all the aspects regarding risk management, for instance, the process, procedures, policies, and guidelines. However, despite the fact that the questionnaires were formulated and conducted using the English version, all the respondents had a clear understanding of the language used taking into account the fact that pilot studies were conducted to test the questionnaires, confirming that they were simple and understandable. Pretesting was conducted to check and confirm the wording and order of the questions, considering the fact that the questionnaire was designed based on the previous studies. It was, therefore, necessary to determine whether the questionnaire would be able to acquire the needed data for this study. In addition, it was also important to consider the structure of the questionnaire. This was conducted through the telephone interviews, while the pretest questionnaires were sent to the respondents through email. The comments from the respondents were immediately received and recorded during the interviews. Issues to deal with the structure of the questionnaires were also discussed, which provided the basis under which some of the questions and statements were actually rectified. However, it is worth noting that no negative response was actually obtained during the data collection process.

However, there are several weaknesses regarding the study. First, the application of the non-probability sampling made it difficult to obtain feedback. It is also important to note that mail surveys were applied in data collection. However, mail surveys cannot be applied to obtain data from the illiterates, it does not provide the researcher with the opportunity to clarify ambiguous questions, cannot regulate the speed of the responses, and is hard to alter with the order of the questions. Furthermore, mail surveys have very little capacity to secure the specific individual responses. It is also important to note that the sample that was used in this study contains a small proportion of the numerous organizations found within the United Arab Emirates. However, despite the fact that the findings of the study are grounded on the data obtained from the sampled respondents, it is important to note that it only represents the views of a small proportion of the organizations. This sample was selected due to the lack of stable and exact data and time. Therefore, the findings of this study provide a general rather than a profound idea about critical success factors for effective risk management in the United Arab Emirates. In addition, it is worthy highlighting that there is a limited figure of individuals with good expertise ineffective risk management in this research. Time was also limited. Probably, the application of other methods of data collection tools such as interviews would include more specific categories of the respondents that would generate more data for the study.

**6.4 Suggestion for Future Research Studies (Recommendations)**

The business environment today s characterized by constant and robust changes with a strong expectation that the organizations must come up with strategies that will enable them adapt their operations and processes accordingly in order to enable them remain relevant. One of the key business processes most organizations are emphasizing on include risk management as it allows them to cope and deal with the numerous types of risks they are bound to encounter during their normal functions, while allowing them to address the constant changes within the environment in which they are operating. A list of the critical success factors has been highlighted in the study basing on the views and opinions of the respondents. However, during the study process, a number of suggestions were noted that could be adopted by future studies to help in expanding the present knowledge regarding effective risk management procedures, and the entire research process.

- Considering the process of data collection, this study suggests that future studies should consider obtaining their data from diverse sources. For instance, the views and opinions of the other employees, besides the top management could be taken it in order to get as more diverse views as possible and examine how the aspect of risk management is understood and perceived by all people within the organization. In addition, future studies could consider the use of other data collection instruments, besides the use of questionnaires, for instance interviews, in order to enhance the validity of the findings. It is worthy highlighting that the use of interviews allows the researcher to engage in a face-to-face interaction with the respondents and involve prompts that will enhance the validity of the results.

- It is important to consider the fact that the sample used in this study is rather sample which is only a small representation of the organizations operating within the United Arab Emirates. Therefore, the findings of this study give a general idea regarding the critical success factors for effective risk management. The study therefore suggests that future studies should consider using larger samples than the one that was used in this study in order to ensure more reliable results are obtained.
- It is apparent that this study was more general considering the fact that it focused on various lines of business regarding the organizations operating within the United Arab Emirates. Future studies should consider being more specific and narrow down to a specific industry or line of business in order to enhance the reliability and validity of the results.
- The seven critical success factors for effective risk management as confirmed by this study should be further tested by future studies and in different business lines in order to confirm on their validity.

However, basing on the findings of this study, which are grounded on the opinions and views of the respondents, it is important to note that risk management is a wide field that needs more research in order to be able to understand how this aspect can be effectively integrated into the business processes. Just like the success of any project requires cooperation from all the employees, risk management as well calls for cooperation and team work.

**Bibliography**


Aaker, D & *Day*, George S 1990, *Marketing Research*, 4th edition, John Wiley.

Al-Tamimi, H & Al-Mazrooei, FM 2007, Banks' risk management: a comparison study of UAE national and foreign banks, *The Journal of Risk Finance*, vol. 8, no. 4, pp. 394-409.

Altman, W & Cooper, G 2004, (October/November), Integrating enterprise-wide risk management, *Engineering Management*, vol. 13.

Anderson, K & Terp, A 2006, Risk Management, Andersen T.J. (ed.), *Perspectives on Strategic Risk Management*: 27-46. Copenhagen Business School Press, Denmark.

Brymman, A & Bell, E 2007, Business research strategies, *Business research methods*, 2 edn. (3-37), Oxford University Press, United States.

Carey, A 2001, Effective risk management in financial institutions: the Turnbull approach, *Balance Sheet*, vol. 9, no. 3, pp. 24-27.

Churchill, GA 1995, *Marketing research: methodological foundations,* 6th edition, South-Western/Thomson Learning, Mason, Ohio.

Clutterbuck, D & Hirst, S 2002, Leadership communication: A status report", *Journal of Communication Management*, vol. 6, no. 4, pp. 351-354.

Committee of Sponsoring Organizations, 2004, Enterprise risk management framework, *Committee of Sponsoring Organizations of the Treadway Commission, American Institute of Certified Public Accountants,* viewed 30 October 2012, <www.aicpa.org>.

Culp, CL 2001, The Risk Management Process: Business Strategy and Tactics, John Wiley & Sons: New York.

DeLoach, J 2004, The new risk imperative-an enterprise-wide approach, *Handbook of Business Strategy*, pp. 29-34.

Doherty, NA 2000, *Integrated risk management: Techniques and strategies for managing corporate risk*, McGraw-Hill, Inc., New York.

Erden, F 2003, Optimal trust and teamwork: from groupthink to teamthink, *Work Study*, vol. 52, no. 5, pp. 229-233

Fill, C & Mullins, L 1990, The Effective Management of Training, *Industrial and Commercial Training*, vol. 22, no. 1, pp. 13-16.

Fombrun, Charles J 1996, *Reputation: Realizing Value from the Corporate Image*, Prentice Hall, Great Britain.

Funston, R & Galloway, D 2000, The challenges of enterprise risk management, *Enterprise Risk Management*, vol. 8, no. 6, pp. 22-23.

Galorath, D 2006, Risk Management Success Factors, *PM World Today*, vol. 8, no. 11, viewed <http://www.pmforum.org>.

Grabowski, M & Roberts, K 1999, Risk mitigation in virtual organizations, *Organizational Science*, vol. 10, no. 6, pp. 704-722.

Halliday, S, Badenhorst, K & Solms, RV 1996, A business approach to effective information technology risk analysis and management, *Information Management & Computer Security*, vol. 4, no. 1, pp. 19–31.

Harris, S 2006, How to implement an effective risk management team, viewed 26 October, 2012, <http://searchsecurity.techtarget.com/tip/1,289483,sid14_gci1178859,00.html>.

Hasanali, F 2002, Critical success factors of knowledge management, viewed 29 October, 2012, <www.kmadvantage.com/docs/km_articles/Critical_Success_Factors_of_KM.pdf>.

Henriksen, P & Uhlenfeldt, T 2006, Contemporary Enterprise-Wide Risk Management Frameworks: A comparative Analysis in a Strategic Perspective, Andersen TJ (ed.), *Perspectives on Strategic Risk Management* (107-130), Copenhagen Business School Press, Denmark.

Hofstede, G 2001, *Value and Culture, Culture's Consequences (ed.)*: 1-40, *Sage Publication*, London.

Hughey, AW & Mussnug, KJ 1997, Designing effective employee training programs, *Training for Quality*, vol. 5, no. 2, pp. 52-57.

Hunter, J 2002, Improving organizational performance through the use of effective elements of organizational structure, *International Journal of Health Care Quality Assurance incorporating Leadership in Health Services*, vol. 15, no. 3, pp. xii-xxi

Ifinedo, P 2008, Impacts of business vision, top management support, and external expertise on ERP success, *Business Process Management Journal*, vol. 14, no. 4, pp.551-568.

ISO/DIS 31000 2008, Risk management Principles and guidelines on Implementation, *International Organization for Standardization*, viewed 29 October 2012, <www.iso.org>.

King, RS 2002, *Mini Marketing: The New Common-Sense Low-Cost Approach for Selling Yourself, Your Products, and Your Services.* Pelican Publishing.

Lam, J 2000, Enterprise-wide risk management and the role of chief risk officer. *eRisk*. March, pp. 1-5. *Logistics Information Management*, vol. 12, no. 1/2, pp.138-144.

Mayer, RC, Davis, JH, & Schoorman, FD 1995, An integrative model of organizational Trust, *Academy of Management Review*, vol. 20, no. 3, pp. 709-734.

McAllister, DJ 1995, Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations, *Academy of Management Journal*, vol. 38, 1, pp. 24-59.

Meier, RL 2000, Integrating enterprise -wide risk management concepts into industrial technology curricula, *Journal of Industrial Technology*, vol. 16, no. 4, pp. 1-15.

Mosadeghrad, AM 2006, The impact of organizational culture on the successful implementation of total quality management, *The TQM Magazine*, vol. 18, no. 6, pp. 606-625.

Moss, GD 1997, Effective training of trainers: the ATLS approach, *Education + Training*, vol. 39, no. 5, pp. 168–175.

Mutsaers, EJ, Zee, HVD, & Giertz, H 1998, The evolution of information technology, Information Management & Computer Security, vol. 6, no. 3, pp. 115–126.

NIST 2004, Risk Management Guide for Information Technology Systems, *National Institute of Standards and Technology*, viewed 29 October 2012, from <http://csrc.nist.gov/publications/nistpubs/800-30/sp800-30.pdf>.

NSW Department of State and Regional Development 2005, Risk management guide for small business, *Global Risk Alliance on the instruction of the New South Wales Department of*

*State and Regional Development, NSW Department of State and Regional Development,* viewed 26 March 2009, <www.smallbiz.nsw.gov.au>.

Oxelheim, L & Wihlborg, C 1987, *Macroeconomic uncertainty. International risks and opportunities for the corporation,* Sage Press: New York.

Partnerships BC 2005, An Introduction to Risk Management in a Public Private Partnership, *Partnerships British Columbia*, viewed 22 October, 2012, <www.partnershipsbc.ca>.

Pinto, JK, Slevin, DP & English, B 2008, Trust in projects: An empirical assessment of owner/contractor relationships, *International Journal of Project Management*, vol. 22, no. 3, pp. 175–182.

PricewaterhouseCoopers International Limited 2007, Creating value: Effective risk management in financial services, viewed 26 October 2012, <http://www.pwc.com/extweb/pwcpublications.nsf/docid/47a1b25a679c22d18525729400182a60>.

Quirke, B 1996, Putting communication on management's Agenda, *Journal of Communication Management*, vol. 1, no. 1, pp.67-79.

Rayner, J 2004, *Managing Reputational Risk: Curbing Threats, Leveraging Opportunities,* John Wiley & Sons.

Rolland, H 2008, Using IT to drive effective risk management, *The Risk and Insurance Management Society, Inc. (RIMS)*, viewed 1 November 2012, <www.rmmag.com>.

SBP 2003, Risk Management Guidelines for Commercial Banks & DFIs, *State Bank of Pakistan*, <http://www.sbp.org.pk/about/riskmgm.pdf>.

Shin, N 1999, Does information technology improve coordination? An empirical analysis, *Journal of Logistics Information Management*, vol. 12, no. 2, pp. 138-144.

Standards Australia and Standards New Zealand 2004, Australia/ New Zealand Standard Risk Management AS/NZS 4360:2004, *Standards Australia, Sydney/Standards New Zealand, Auckland, viewed* 30 October 2012, <www.saiglobal.com>.

Stank, TP, Daugherty, PJ & Gustin, CM 1994, Organizational Structure: Influence on Logistics

Integration, Costs, and Information System Performance, *The International Journal of Logistics Management*, vol. 5, no. 2, pp. 41-52.

Symons, J 1995, “Making staff aware of risks”, *Health Manpower Management*, Vol. 21(4), pp. 15–19

Tcankova, L 2002, Risk identification; basic stage of risk management, *Environmental Management and Health*, vol.13, no. 3, pp. 290-297.

Tyler, TR 2003, “Trust within organizations”, *Personnel Review*, vol. 32, no. 5, pp. 556-568.

Xenomorph 2007, A Platform for Effective Risk Management Increasing market risk managers' effectiveness, *Xenomorph Transforming Data Management,* viewed, <www.xenomorph.com>.

Zwikael, O 2008, Top management involvement in project management A cross country study of the software industry, *International Journal of Managing Projects in Business*, vol. 1, no. 4, pp. 498-511.

## Appendix

### Questionnaire

Critical success factors for effective risk management in the United Arab Emirates

1. What is your line of business?

Asset Management

Banking

Insurance

Stock Exchange

Telecommunication and technology

Other (Specify please) -----------------------

2. For how long have you been working with risk management?

More than 5 years

3-5 years

1-2 years

Less than a year

3. What expectations do you have regarding effective risk management within your organization? (You can give more than one answer)

Enhance communication with stakeholders

Minimize financial risks

Improve resource allocation

Enhance the process of decision making

Other (Specify please) --------------------------------------

4. Support and Commitment from top management
   1. Who is charged with the main responsibility of establishing risk management within your organization?

Chief Financial Officer

Committee/ Board

Chief Executive Officer

Internal auditor

Executive Management Team

Staff

Other (Specify please) ---------------------------------------------

2. How is the risk management policy being supported in your organization? (You can give more than one answer)

Strict adherence to risk management policy ☐

Updating risk management policy regularly ☐

Allocating resources ☐

Listening to the problems from employees ☐

Establishing risk management teams ☐

Allocating risk management responsibilities ☐

Other (Specify please) --------------------------------------------

3. Does your organization have a policy to allow the development of risk management in future?

Yes ☐

No ☐

5. Communication

1. How often does your organization apply the following methods of communication?

| | **Almost never** | **Sometimes** | **Fairly often** | **Very often** | **Always** |
|---|---|---|---|---|---|
| **Telephone** | | | | | |
| **Meeting** | | | | | |
| **Face-to-face** | | | | | |
| **E-mail** | | | | | |
| **Bulletin board** | | | | | |

| **Memo/Fax/Note** | | | | | |
|---|---|---|---|---|---|

2. How does your organization apply communication to ensure effective reduction of risk? (You are free to choose more than one answer)

Establishing and supporting clear communication

Sharp and fast communication between stakeholder and management

Establishing trustworthy and clear information

Enhancing understanding between employees and management team

Regularly communicating among staff and management

Other (Specify please) ----------------------------------

6. Organization Structure
1. Is there a documented risk management policy or guideline in your organization?

Yes

No

2. Is the policy or guideline in line with the objectives and goals of risk management?

Yes

No

3. Do you understand what a risk management policy or guideline is?

Yes

No

4. How frequently does your organization revise polices or guidelines to deal with risks?

Once a year

Twice in 2 years

Once in over 2 years

Never

7. Information Technology
   1. Does your organization apply international frameworks, methodologies, or standards to protect its information?

Yes

No

   2. Who is charged with the main responsibility of controlling and evaluating the risks of information technology?

Executive Management Team

Chief Executive Officer

Information Technology auditors

Committee/Board

Staff

Other (Specify please) ----------------------------------

8. Training
   1. How frequently does your organization offer training courses related to risk management?

More than twice a year

Twice a year

Once a year

Less than once a year

Never

2. Does your organization maintain established procedures for ensuring it is informed and up-to-date with the amendments in regulations?

Yes

No

3. Are new employees offered training in your organization?

Yes

No

9. Trust

1. How significant is trust within your organization?

Critical

Important

Not Important

2. How would you rate the significance of the following factors? (Tick where appropriate)

| | **Strongly agree** | **Agree** | **Neutral** | **Disagree** | **Strongly disagree** |
|---|---|---|---|---|---|
| **I trust my supervisors** | | | | | |
| **I trust my colleagues** | | | | | |
| **I have the confidence to present my opinions** | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **I trust my subordinates** | | | | | |

10. Organizational Culture

1. Please indicate whether you agree or disagree with the following (Tick where appropriate)

| | **Strongly agree** | **Agree** | **Neutral** | **Disagree** | **Strongly disagree** |
|---|---|---|---|---|---|
| **The current culture enables you to understand risk management** | | | | | |
| **Your organization is ready to change its culture to promote risk management** | | | | | |
| **Change in culture is allowed if it is for the good of the organization** | | | | | |
| **The existing culture** | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **promotes collaboration** | | | | | |
| **Information management and communication techniques are significant elements for the organization.** | | | | | |

11. Ranking the critical success factors

1. Please rank the following factors basing on their significance to the organization

| | **Very important** | **Important** | **Neutral** | **Unimportant** | **Very Unimportant** |
|---|---|---|---|---|---|
| **Support and commitment from the top management** | | | | | |
| **Communication** | | | | | |
| **Organizational culture** | | | | | |
| **Information technology** | | | | | |
| **Organizational structure** | | | | | |
| **Training** | | | | | |
| **Trust** | | | | | |

2. Please rate the factors below basing on the level to which they influence effective risk management in the organization, whereby 1 = Most influencing  and 7 = least influencing

| | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|---|---|---|---|---|---|---|---|
| **Support and commitment from the top management** | | | | | | | |
| **Communication** | | | | | | | |
| **Organizational culture** | | | | | | | |
| **Information technology** | | | | | | | |
| **Organizational structure** | | | | | | | |
| **Training** | | | | | | | |
| **Trust** | | | | | | | |

3. Please mention, if any, additional success factors for effective risk management.
   a) ----------------------------
   b) ----------------------------
   c) ---------------------------
4. Please provide any comments or suggestions
   a) -----------------------------
   b) ----------------------------
   c) ----------------------------
5. If you would like to receive a summary of the findings of the study, please provide your email address.

   E-mail -----------------------------

   Thank you for participating