

**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF BUSINESS AND PUBLIC ADMINISTRATION**  
**DEPARTMENT OF ACCOUNTING AND FINANCE**

**INTERNAL AUDIT AND RISK ASSESSMENT IN ETHIOPIAN  
PUBLIC ENTERPRISES**

**BY:**  
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**JUNE, 2011**  
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PUBLIC ENTERPRISES**

*A Thesis Submitted to the School of Business and Public  
Administration of Addis Ababa University in Partial Fulfillment of  
the Requirements for the Degree of Master of Science in Accounting  
and Finance*

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**(GRADUATE PROGRAM)**

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**Statement of declaration**

I, the undersigned, declare that this thesis is my original work, has not been presented for degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

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## **Abstract**

*This research paper examined internal auditing and risk assessment in Ethiopian public enterprise context. 20 public enterprises were purposefully selected. Mixed research approach was used and the data were collected by using questionnaires and document review. Survey results showed that all public enterprises have internal audit function; operational audit requires most resources, with compliance audit second important audit type. The amount of audit resources devoted to risk assessment reveals the relative relevance of this kind of activity. Results also showed that many Ethiopian public enterprises were introduced formal risk assessment process in their internal audit function, and few enterprises were on the way to introduce formal risk assessment process. Hence, for internal audit functions that were not incorporated control risk self assessment, it is better to incorporate for effective risk assessment. Thus, this study will be beneficial in terms of the decision making of the board of directors, audit committee of the organization and other regulatory bodies.*

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## **List of Acronyms and Abbreviations**

AC	Audit Committee
BOD	Board of Directors
CAE	Chief Audit Executive
CEO	Chief Executive Officer
CFO	Chief Financial Officer
COSO	Committee of Sponsoring Organization of the Tread way Commission
CRSA	Control Risk Self Assessment
CSA	Control Self Assessment
CSRP	Civil Service Reform program
ECIIA	European Confederation of Institution of Internal auditors
ERM-IF	Enterprise-wide Risk management-Integrated Framework
IAF	Internal Audit Function
IARF	Internal Audit Research Foundation
IC-IF	Internal Control-Integrated Framework
IIA	Institute of Internal Auditor
MSA	Management Self Assessment
OECD	Organization for Economic Cooperation and Development
PE	Public Enterprises
PPESA	Privatization and Public Enterprise Supersizing Agency
SOX	Sarbanes Oxley Act
SPPIA	Standards for Professional Practice of Internal Auditors
SPSS	Statistical Package for Social Sciences
WTO	World Trade Organization

## CHAPTER ONE

### Introduction

#### 1.1 Back ground of the study

The issues of globalization, transparency, integrity and improvement of service delivery increase the need for governance and accountability. Consequently, this phenomenon leads the increasing interest to internal audit function in organizations. Dittenhofer (2001) and Goodwin (2004) have both shown that internal auditing is promising as an important component of management and a control mechanism both in private and public sectors. Still, Montondon and Fischer (2005) have both asserted that the credibility of the internal audit function is significantly important especially in public entities as they are held responsible to diverse stakeholders compared to private entities. Therefore, the nature of the services sought from the internal auditors has been transforming over the years from an emphasis on compliance audit where independence has been the core paradigm, to both compliance and consulting role where partnering with management is accorded greater significance (Turlea and Ștefănescu, 2009; Nagy and Cenker, 2002; Sarens and Beel, 2006; Fraser and Henry, 2007).

Risk assessment is becoming valuable for success and survival of an organization (William and Kinney, 2003). Regulatory requirements diverted internal audit resources from other important internal audit activities such as risk-based audits to assurance work (Sarens and Beel, 2006). Failure to address key strategic and operational risks as well as compliance risk in an annual audit programs undermines the effectiveness of the IAF. It diminishes its strategic value to key stakeholders and exposes the enterprise to internal auditors must not only be able to assess risks in their organizations, but they must also be able to complete

complex risk analyses in their own IAF. Being able to self evaluate is important to the success of the IAF. To accomplish this, internal auditors need to possess increasing levels of critical thinking, analysis, decision making, and logic.

By stating that the internal audit activity should evaluate and contribute to the improvement of risk management, control and governance, The Institute of Internal Auditors, IIA (2004) recognizes the assurance and consulting role of internal auditors in corporate governance. Until now, as per knowledge of the researcher very little empirical research on the internal auditing and risk assessment practices has been conducted within an Ethiopian context.

In this regard, the government of Ethiopia as part of its development strategy to stop various corrupted officials and other criminal activities; it is becoming obvious that addressing the problems of economic crime is vital. Due to this, issuing Proclamation No.68/1997 and the issuance of internal audit procedure manual for the public sector backs the relevance of IAF. Moreover, the issuance of Proclamation No. 235/2001 to establish the Federal Ethics and Anti Corruption Commission and the implementation of the Civil service reform plan are clear indicators of government's concern to embed good governance system in the public sector of Ethiopia.

The scarcity of information on internal auditing and risk assessment practice in Ethiopian context will make this research important for many stakeholders. It can be for an initiation for those who are interested to conduct a detailed and comprehensive study regarding internal audit practices in Ethiopian organizations. And it will enable the governing body, specifically the managements, the higher responsible body, and audit committee of selected public enterprises, to be aware of the importance use of internal audit for effective risk assessment and internal control, and gives insight how they use the internal audit service most efficiency.

By utilizing an analytical framework from the extant literature and empirical evidence from other countries context, the research elaborated in more detail internal auditing practices and risk assessment and aims to draw inferences regarding the use of control self-assessment methods and the use of risk-based auditing within the selected Ethiopian public enterprises context by using self administered questionnaire distributed to internal auditors and reviewed some documents. According to Proclamation No. 68/ 1997, “Public Enterprise” means a wholly state owned enterprise established pursuant to Proclamation No. 25/1992 to carry on for gain manufacturing, distribution, service rendering or other economic and related activities.

### **1.2 Statement of the problems**

In developing countries, there has been increased interest and give more attention to IAF as one tool to enhancing good governance system of the public sector (Diamond, 2002). This has arisen from a number of sources, in the OECD and WTO member countries and in countries that are highly dependent on donation and loan. There is a call for improved accountability and greater transparency that resulted in more information about government programs and services that in turn requires improved financial reporting system. At the same time, the increased emphasis on accountability and improving public enterprise performance has demanded management to “protect” itself by improving the IAF procedures that will provide them some minimal assurances of meeting these external demands.

Evaluate and improve the effectiveness of risk management, control and governance processes’ emphasizes the need for internal audit to understand risks as well as management’s methods for managing or mitigating such risks. Controls exist to help management by mitigating risk exposure and, therefore, are part of the risk management process (Selim and McNamee, 1999).

Internal auditing practice and risk assessment differ contextually (Arena and Azzone, 2006; Allegrini and D`Onza, 2003). Karagiorgos *et al* (2007) stated that internal audit is an essential factor in the efficient risk management and consecutively in the business survival and success. Moreover, it is important to notice that the Ethiopian environment is different from the developed countries environment where the internal auditing profession is more developed and where companies are subject to more stringent corporate governance regulations. It is better to see the problem in developing countries context to enrich and extend the understanding of internal auditing and risk assessment practices in Ethiopian public enterprises context.

### **1.3 Objective of the study**

The general objective of this study was to see internal auditing function and risk assessment in Ethiopian public sector for profit organizations. In order to achieve the above intended objective this study tried to answer the following specific research questions.

RQ1. What are structures and activities of internal audit function?

RQ2. To what extent internal audit functions use control models?

RQ3. To what extent internal audit functions use risk assessment methods?

RQ4. To what extent internal audit functions use risk-based auditing?

RQ5. To what extent internal audit functions use control risk self assessment models?



## **1.4 Research Design**

The researcher used mixed method approach, the rationale for combining both quantitative and qualitative data in this study was to better understand a research problem by combining both numeric values from quantitative research and the detail of qualitative research and to neutralize limitations of applying any of a single approach and a means to offset the weaknesses inherent within method with the strengths of the other method (Creswell, 2009).

This mixed method research had an objective to see the internal auditing practice and risk assessment in the public sector (for-profit) organizations in Ethiopia, in respect of the current economic situation and international directions on the field. The objectives the research was achieved by using a concurrent triangulation mixed research strategy. Concurrent strategies are used to combine quantitative and qualitative data in order to provide a comprehensive analysis of the research problem (Creswell, 2009)

### **1.4.1 Survey design**

This study had intent to assess the internal auditing and risk assessment practices in Ethiopian public enterprises. To do this proposed study, the methods that will be employed are survey design. Survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. Its purpose is to generalize from a sample to a population so that inferences can be made and it is also economical and rapid turnaround in data collection (Creswell, 2003). This survey was conducted by means of self-administered questionnaire, with in selected public enterprises; questionnaires were distributed to internal auditors. Questionnaire is a common place instrument for observing data beyond the physical reach of the observer (Leedy, 1989).

## **1.4.2 Sample selection and Data Collection**

### **1.4.2.1 Sample**

Survey sampling is the process of choosing, from a much large population, a group about which the researcher wish to make generalized statements so that the selected part will represent the total group (Leedy, 1989). The population considered in this study was the total public Enterprises which operate in Addis Ababa, and purposely draw a sample from the total to get rich evidence. As per Ministry of trade and industry license directorate office (2011), there are 144 public sector enterprises in Ethiopia, from which 118 are located in Addis Ababa.

The sampling design for this population was purposeful sampling. In which, 20 large organization were selected. Large enterprises included in the sample because large organizations assumed to have internal audit function and they may use sophisticated auditing activities (Allegrini and D`Onza, 2003). Thus, purposeful sampling method was very valuable method to this study. Numbers of internal auditors in the head quarter were collected from human resource of each organization and all of them were included in the sample.

### **1.4.2.2 Data Collection instruments**

Two types of data collection instruments were used in this study: one questionnaire for internal auditors and document review.

#### **1.4.2.2.1 Questionnaire**

To enhance validity questionnaires mostly were adapted from (Arena and Azzone, 2006; Allegrini and D`Onza, 2003). Research evidence was gathered through a survey conducted by using detailed close-ended and open-ended questionnaires to internal auditors. Mixed Questionnaires have many merits; the most important of this advantage is its considerable flexibility (McNabb,

2005).with regard to closed-ended questionnaires, the respondents were asked to show their level of agreement on a five point Likert- scale with the following ratings: Strongly agree (SA; or 5), agree (A; or 4), neutral (N; or 3), disagree (DA; or 2), and strongly disagree (SD; or 1). The number indicated in the questionnaire to provide attitude of internal auditors for interval scale measurement and to generate data suitable for quantitative analysis. With respect to open-ended questioners, the respondents were requested to provide open-ended responses to the questions that require opinion and if they have opinions which they feel the researcher would find useful.

#### **1. 4.2.2.2 Document review**

Documents were reviewed by referring most recent information from authorized documents and different reports. Annual reports, internal audit charters and other documents related to internal auditing practices and risk assessment were used. Document review was used to triangulate the data collected by questionnaires.

#### **1.4.3 Data Analysis**

Both quantitative and qualitative data analysis method were used. First the data collected through the questionnaires were analyzed with descriptive statistics by using statistical package for social scientists and qualitative method of analysis is employed for feedbacks obtained using open-ended questionnaire and data reviewed from documents.

#### **1.5 Limitation and scope of the study**

The scope of the study was limited to internal auditing and risk assessment in profit making public sector organizations in Ethiopian context. It does not include private organizations, non-for profit organizations and budgetary public

sector organizations. The researcher believes that the findings of this study would have been more productive if it has been conducted on all governments and private organizations in Ethiopia. However, due to time and financial constraints, it was out of the reach of the researcher to incorporate all in this study. Due to this, the research was limited to from for-profit Public Enterprises.

In the light of the limited research that exists on internal auditing practice and risk assessment in public sector (for-profit) organization, within the Ethiopian context, the study was built on the current body of knowledge and studies conducted in other countries context.

#### **1.6 Significance of the study**

The study will have many advantages for all practitioners and academicians by providing useful information about internal auditing and risk assessment in Ethiopian public enterprises (for-profit) organizations. It will also be useful for organization`s management by providing information about best internal auditing and risk assessment practices. It will be also very important for academic purpose by providing information in regard to statement of the problem.

The study could also be used as an initiation for those who are interested to conduct a detailed and comprehensive study regarding the role of internal audit in Ethiopian Public enterprises. And It will enable the governing body, specifically the managements, the higher responsible body, and audit committee of selected public enterprises, to be aware of the importance use of internal audit, and gives insight how they use the internal audit service most efficiency.

## **1.7 Organization of the paper**

This study is organized in to four chapters. Chapter one presented the introduction of the study which includes background of the study, statement of problems, objective of the study, methodology of the proposed study, limitation and scope of the study, and significance of the study . Chapter two was presented the literature review regarding the research area of internal auditing and risk assessment practices and therefore sets out the theoretical foundations for the research. The research results were presented in chapter three. The final chapter concluded the paper, summarized the findings and introduced avenues for future research.

## CHAPTER TWO

### Review of Related Literature

#### 2.1 Introduction

The discussion on the issue of internal auditing has increased significantly in recent years; this shows the relevance of internal auditing in organizational governance. Control mechanisms including internal audit departments, are widely considered important element in detecting fraud and increase the value of an organization (Arena and Azzone, 2009; Spira and Page, 2003). In this chapter, the researcher tried to discuss: control governance frame works, internal audit function structure and activities, audit department size, audit department position in organization structure and reporting lines, types of auditing control models, risk assessment, risk assessment models, main participants in risk assessment , risk- based auditing, control risk self assessment and summarized the main points.

#### 2.2 Control governance frame work

In this section the researcher reviewed control activities within an organization. Corporate governance is extended to consideration of *all* business risks – operational, financial and compliance which may prevent an organization from achieving its objectives. In other words, internal control must include risk management (Crawford and Stein, 2002). Good governance promotes relationships of accountability among the primary corporate participants to enhance corporate performance (Rezaee, Olibe and Minmier, 2003). To meet this responsibility, organizations require adapting and combining the expertise of existing internal audit with that of risk management functions and relate the resulting effort to the business and operational needs of the organization.

Internal control is a process effected by an entity`s board of directors, management and others within an organization. It should provide reasonable assurance regarding the achievement of objectives in the following categories: effectiveness and efficiency of operations; reliability of financial reporting and compliance with laws and regulations. Until regulations and standards changed internal audit is considered as part of internal control system of a company, yet must also remain independence (Protiviti Inc., 2009).

As per Rezaee (1995) COSO report has a significant impact on the increasing role and responsibilities of internal auditors, specially their role in the entity`s internal control system. It is a landmark in the evolution of internal control which refocuses public attention on the need for public reporting on internal controls.

As per Beretta and Bozzolan (2009) an internal control process that effectively supports risk management must:

- be able to identify the risks threatening the business;
- be integrated into the processes of strategic objectives setting and of strategic resources allocation;
- be closely linked to the process of budgeting and assignment of objectives to management and
- Ensure the continuous monitoring of risk management strategies

Generally, approaches to guidance and regulation on risk and control are globally diverse, and the prospects for convergence are uncertain. The only firm point of agreement is that risk management and effective internal control are fundamental prerequisites of good corporate governance (Woods 2008).

From the above discussion one can infer that internal auditing provide valuable role in organizations. It is one part of internal control system of a company to investigate effectiveness and efficiency of management activity.

## **2.3 Internal auditing: structure and activities**

### **2.3.1. The structure of internal audit function**

The structure of internal audit function widely differs among different organizations. In some organizations IAF have chief audit officer who is member of senior management, but in some other organizations IAF is as part of finance and accounting function. On the other hand it maybe out-sourced or combined with other assurance functions (Prawitt, 2003). The structure of internal audit function affects its overall activities, which, intends to operate.

As per Mat Zain, *et al.* (2006) when the audit committee is involved in key decisions such as the replacement of the chief internal auditor, there will be greater empowerment of the internal function. In other words, management influence over the internal audit function decreases and consequently internal auditors would feel more confident in undertaking audit investigations, particularly when dealing with more sensitive issues that may involve senior management.

Thus structure of internal audit function can be affected by; enacted regulations, company structure, age of an organization, organizational status, activity it intends to perform and others.



### **2.3.2 The activities of internal audit function**

Activities of internal audit function differ among organizations depending on the size of an organization, the level of development of professional activities within a given country, corporate governance frame work, and others. Nagy and Cenker (2002) stated that internal audit changed through time from traditional activities to consulting and value added service. The change is due to management expectation not from the profession is self.

Sawyer and Vinten (1996) noted four benefits managers have gained from internal auditing assistance. Internal auditors should first review and appraise the soundness and adequacy of the accounting, financial, and other operating controls, and promote effective controls at reasonable cost. Secondly, the internal auditors should ascertain the extent of compliance with established policies, plans, procedures, laws and regulations, which could have a significant impact on the company's operations. Then the internal auditors review the means of safeguarding assets and when appropriate, verify the existence of such assets and appraise the economy and efficiency with which resources are employed. Lastly, the internal auditors review operations or programs to ascertain whether results are consistent with established objectives and goals and whether the operations or programs are being carried out as planned.

Țurlea and Ștefănescu (2009) approach the internal audit in terms of its essential role and the support granted to the managing board, "in order to handle the internal control". This opinion consolidates the role of the internal audit, which is to ensure the quality of the existing internal controls, the manner they are applied, the correctness and effectiveness of the implemented strategy, giving courage and confidence to the internal audit.

To sum up activities of internal audit function different among organizations depending on different attributes, through time changed from traditional activities to consulting and value added service.

### **2.3.3 Audit department size**

Audit department size is measured by the number of employees assigned to internal audit function or the amount of budget allocated to this function. Carey *et al* (2006) stated that the size of the organization often determines the extent and frequency of its activities. A transaction cost perspective suggests that the larger a company, the greater the opportunity to gain economies of scale from in-housed facilities. Smaller companies are less likely to establish an internal audit department in the absence of economies of scale (i.e. resources and capital to fund the internal audit department).

The IAF plays an important role in providing the board of directors with information to assess managers' effectiveness in using owners' resources. Agency theory suggests that the more information asymmetry between management and shareholders, the greater the need for monitoring, thus the larger the relative size of the IAF. Relatively more staff in the company (as a proportion of total staff) whose major responsibility is actively monitoring the company (Sarens and Abdolmohammadi, 2011).

Therefore the size of internal audit function depends on the size of the organization and the activity it performs, the larger companies have in-house facilities for internal audit purpose.

### **2.3.4 Audit department position in organization structure and reporting lines**

The reporting line and position of internal audit is a dynamic issue, this is because of different corporate scandals and continued financial restatements emerged in different parts of the globe (Protiviti Inc., 2009).

The IIA Advisory 1110-2, Chief Audit Executive (CAE) reporting lines, states “the chief audit executive should report to a level within the organization that allows the internal audit activity to accomplish its responsibility.” The advisory also states that “the IIA believes strongly that to achieve necessary independence, the CAE should report functionally to the audit committee or its equivalent. For administrative purpose, in most circumstances, the CAE should report directly to chief executive officer (CEO) of the organization.

Internal audit has a broader role by serving both audit committee and company management, unlike external auditors which are responsible to and compensated by audit committee. Thus, this “dual reporting” is somewhat sensitive arrangement and can complicate in practice, unless it provides important benefit to the company as a whole (Protiviti Inc., 2009).

Generally reporting line and positioning of internal audit function is ever changing, but internal audit has a broader role by serving both audit committee and company management. As per the IIA the Advisory 1110-2, the chief auditor should report functionally to audit committee and administratively to chief executive officer.

### **2.3.5 Scope of internal audit function**

In contrast to external audit which mainly focuses on assessing historic financial data, internal audit function encompasses the adequacy and effectiveness of governance, risk management and internal control processes in identifying and responding to all the risks facing the organization (ECIIA, 2005).

Internal audit department within the context of improving risk management, control and governance processes, and the type of work undertaken to add value to an organization will vary greatly. Organizations with rigid regulatory requirements in an industry where scandals are common may find that compliance reviews are the best way to add value to the business. Enterprises in rapid growth sectors where speed in delivering new products is the key to success may find that consulting advice on controlling programmes and projects may be the most appropriate value add proposition (Pickett, 2010).

Public bodies in developing countries may want their audit effort directed at helping to build better controls and deal with corruption issues. Companies and bodies that are embarking on a long-term reform program may want their auditors to help build a capacity to self-assess risk and controls in line with awareness events and facilitated self assessment programmes.

Internal audit may undertake the following different types of work: giving assurance to the board that the organization's risks have been properly identified and managed in accordance with the approved risk appetite; reviewing the activities undertaken by management to implement the ethical policy across the whole organization; giving assurance that business continuity and disaster recovery planning, including that for mission-critical information systems, is adequate given the risks facing the organization and the risk appetite; giving assurance that the purchase process includes adequate controls to ensure

agreed levels of competitiveness, cost savings and quality performance; assisting the management team in evaluating the actual return on investments over a given period of time; carrying out an internal audit to verify an organization's compliance with labour laws and regulations; giving assurance that measures are properly designed and working effectively to address health, safety and environmental risks on industrial sites; verifying that all purchase and sales contracts comply with the organization's policies; giving an opinion on the efficiency and effectiveness of the customer complaints process; and providing advice to management on the design and implementation of risk management processes (ECIIA,2005).

Woods and Humphrey (2008) list out some of the tasks that have been found to fall within the contemporary scope of internal audit:

- Audit of risk management processes across the full breadth of an organization
- Supporting and training staff in the area of risk identification, assessment and monitoring
- Drafting of a risk-based audit plan, which focuses on the key risks identified by senior management?
- Drafting and co-ordination of the risk management reports submitted to both the Audit Committee and the Board of Directors
- Providing a commentary on the effectiveness of actions taken by management to address control weaknesses identified by internal audit
- Communicating good practice in risk management
- Providing a statement of assurance on risk and internal control for the Audit Committee and the Board of Directors.

To sum up the scope of internal audit varies among organization depending on the environment in which the organization operate.

### 2.3.6 Control models

There are different control models companies can use to assess their risk; the most important of this is the report of Committee of Sponsoring Organization of the Tread way Commission (COSO). The issued the report called in internal control -integrated Framework in September1992. This report showed the importance of internal controls in achieving an entity's objectives and provides the impetus for entities to refocus attention on their systems of internal controls in an attempt to ensure responsible corporate governance and reliable financial reporting processes.

The recent scandals and financial crashes that hit several large listed companies laid bare the inadequacy of internal control systems in directing management attention and resources towards risk management. An answer to the increasing demand for a more risk-focused perspective in the design and implementation of internal control systems has been given recently by COSO through the Enterprise Risk Management Integrated Framework (ERM-IF) (COSO, 2004).

In the 1992 report, the identification and assessment of risk were considered strictly an aid in determining the adequacy of internal control systems. In fact, emphasis was placed on the internal control system, risk assessment being only one element of the control process. In the ERM framework (2004), risk management is a key governance activity and internal control is an element of the ERM system. In order to appreciate its relevance and scope, risk management must be examined in connection with:

- Corporate governance, as top management is responsible for conscious and effective risk management;
- Performance measurement, as risk assessment is a key ingredient of risk-adjusted return measures;

- Internal control, as internal control is considered a component of Enterprise Risk Management systems.

Regulations related to risk and control around the world are conflicting each other, in the USA, for example, there is on the one hand the widely held view that effective internal control requires the implementation of ERM (COSO,2004), which may take some years to complete. At the same time, there is a US-regulatory view that the primary consideration is financial controls (SOX, 2002) that are essential to providing reassurance on the reliability of financial statements. This narrowing of the definition of risk appears to be in direct conflict with the culture of ERM. In Europe, the approach is 'comply or explain' approach to governance, rather than reliance upon auditors' assessment of internal control effectiveness. As of 2008 this principle is not universally applicable across Europe because of a need for some member states to introduce national governance codes.

### **2.3.7 Types of internal audit**

Audits performed by internal audit function are; financial audit for public financial statements, audit of the management information system, operational audit, compliance audit, special projects, IT Audit, fraud investigation, risk assessment and others.

#### **2.3.7.1 Financial audit for public financial statement**

An audit of financial statements is conducted to determine whether the overall financial statements (the quantifiable information being verified) are stated in accordance with specified criteria. Normally, the criteria are the requirements of the applicable International Financial Reporting Standards (IFRSs). The financial statements most commonly comprises of the Balance Sheet, Income Statement, Statement of Changes in Equity, Cash Flow Statement, and Notes to the

accounts. The assumption underlying an audit of financial statements is that these will be used by different groups for different purposes. Therefore, it is more efficient to have one auditor who will perform an audit and draw conclusions that can be relied upon by all users than to have each user perform his or her own audit. If a user believes that the general audit does not provide sufficient information for his or her purposes, the user has the option of obtaining more data. For example, a general audit of a business may provide sufficient financial information for a banker considering a loan to the company, but a corporation considering a merger with that business may also wish to know the replacement cost of fixed assets and other information relevant to the decision. The corporation may use its own auditors to get the additional information (Virtual University of Pakistan, n.d).

#### **2.3.7.2 Operational audit**

An operational audit is a review of any part of an entity's operating procedures and methods for the purpose of evaluating efficiency and effectiveness. At the completion of an operational audit, recommendations to management for improving operation are normally expected. An example of an operational audit is evaluating the efficiency and accuracy of processing payroll transactions in a newly installed computer system. Another example, where most accountants would feel less qualified is evaluating the efficiency, accuracy, and customer satisfaction in processing the distribution of letters and parcels by a courier company (Virtual University of Pakistan, n.d).

Because of the many different areas in which operational effectiveness can be evaluated, it is impossible to characterize the conduct of a typical operational audit. In one organization, the auditor might evaluate the relevancy and sufficiency of the information used by management in making decisions to



acquire new fixed assets, while in a different organization the auditor might evaluate the efficiency of the paper flow in processing sales. In operational auditing, the reviews are not limited to accounting. They can include the evaluation of organization structure, computer operations, production methods, marketing, and any other area in which the auditor is qualified. The conduct of an operational audit and the reported results are less easily defined than for either of the other two types of audits. Efficiency and effectiveness of operations are far more difficult to evaluate objectively than compliance or the presentation of financial statements in accordance with accounting conventions and principles; and establishing criteria for evaluating the quantifiable information in an operational audit is an extremely subjective matter. In this sense, operational auditing is more like “management consulting” than what is generally regarded as “auditing”. Operational auditing has increased in importance in the past decade (Virtual University of Pakistan, n.d).

### **2.3.7.3 Compliance audit**

The purpose of a compliance audit is to determine whether the entity is following specific procedures, rules, or regulations set down by some higher authority. A compliance audit for a private business could include determining whether accounting personnel are following the procedures prescribed by the company controller, reviewing wage rates for compliance with minimum wage laws, or examining contractual agreements with bankers and other lenders to be sure the company is complying with legal requirements. In the audit of governmental units such as districts school, there is extensive compliance auditing due to extensive regulation by higher government authorities. In virtually every private and non for profit organization, auditing. Results of compliance audits are typically reported to someone within the entity being audited rather than to a broad spectrum of users. Management, as opposed to

outside users, is the primary group concerned with the extent of compliance with certain prescribed procedures and regulations. Hence, a significant portion of work of this type is done by auditors employed by the entity itself. There are exceptions; when an organization wants to determine whether individuals or entities that are obligated to follow its requirements are actually complying, the auditor is employed by the entity issuing the requirements. An example is the auditing of taxpayers for compliance with the federal tax laws, where the auditor is employed by the government to audit the taxpayers' tax returns (Virtual University of Pakistan, n.d).

#### **2.3.7.4 Fraud investigation**

It is not a primary role of internal audit to detect fraud. Internal audit's role is to provide an independent opinion based on an objective assessment of the framework of governance, risk management and control. This will include the effectiveness of the processes put in place by management to manage the risk of fraud. In doing so, internal auditors may: Review the organization's risk assessment seeking evidence on which to base an opinion that fraud risks have been properly identified and responded to appropriately (i.e. within the risk appetite). Provide an independent opinion on the effectiveness of the fraud prevention and detection processes put in place to reduce the risk of fraud. Review new programmes and policies (and changes in existing policies and programmes) seeking evidence that fraud-risk had been considered where appropriate and providing an opinion on the likely effectiveness of controls designed to reduce the risk of fraud. Consider the potential for fraud in every audit assignment and identify indicators that fraud might have been committed or control weaknesses that might indicate a vulnerability to fraud. Review areas where major fraud has occurred to determine how frauds were perpetrated and make recommendations about strengthening internal controls where

appropriate. Assist with, or carry out, fraud investigations on management's behalf. Internal auditors should only investigate fraud if they have the appropriate expertise and understanding of relevant laws to allow them to undertake this work effectively. If fraud investigation work is undertaken, management should be made aware that the internal auditor is acting outside of the core internal audit remit and of the likely impact on the audit plan. Provide an opinion on the likely effectiveness of the organization's fraud-risk strategy (e.g. fraud policy, fraud response plan, whistle blowing policy, codes of conduct) and if these have been communicated effectively across the organization. Management has primary responsibility for ensuring that an appropriate strategy is in place and the role of internal audit is to review the effectiveness of the strategy. Consider whether to report concerns of criminal activity that come to light as a result of audit fieldwork to an appropriate third party such as a fraud or security professional within the organization (HM Treasury, 2010).

If during an audit assignment internal auditors identify control weaknesses that could allow fraud, or find evidence that fraud has been perpetrated or is occurring, the following actions should be taken: Refer to local internal audit policy/procedures on handling suspected fraud and/or organization's fraud response plan; Decide whether to extend the audit work and design additional tests directed towards the identification of activities which may be indicators of fraud; Consider the rights of any alleged perpetrators; Decide whether there is clear evidence of fraud to recommend an investigation; Ensure that the extent of the concern is captured and communicated so that implications can be considered in the formation of the HIA's overall assurance; and Consider at what point management should be advised of internal audit's concerns (HM Treasury, 2010).

## **2.4 Risk assessment**

Both definitions of risk and our understanding of the term risk management have changed over time. Selim and McNamee (1999, p. 161) described as ‘major paradigm shifts in organizations’ approach to risk management.’ As per Woods (2008) in ancient times risk was seen as a consequence of natural causes that could not be anticipated or managed, but more modern, scientific-based thinking has led to the emergence of a view that risk is both quantifiable and manageable via the judicious use of avoidance and protection strategies.

Risk is now viewed from a very broad perspective, it encompasses issues such as corporate reputation, regulatory compliance, health and safety of employees, supply chain management and general operational activities and this changed perspective has led to some rethinking of the approaches to the design of internal control systems (Woods, 2008).

Risk management is a dynamic process for taking all reasonable steps to find out and deal with risks that impact on our objectives. It is the response to risk and decisions made in respect of available choices that is important and the IIA has made the pertinent point that: ‘Although organizations use the term risk management frequently, it too is misleading, because risk is never actually managed. It is the organization that is managed in anticipation of the uncertainty (and opportunities) presented by risk in the environment (Pickett, 2010).

Practitioners have long considered risk assessment as an activity to be performed in the audit process with the specific aim to identify areas of weakness or symptoms of potential failure. Specifically, since the issuance of the COSO Internal Control Integrated Framework (IC-IF) (COSO, 1992), risk assessment is explicitly regarded as one of the components of internal control systems (Beretta and Bozzolan, 2009).

As per Rezaee (1995 p. 6) "Risk assessment requires identification and investigation of both internal and external risks and acceptance of prudent business risk in achieving an entity's objectives". It assists management and internal auditors to be in control. Being in control requires sustaining the ability to identify, understand and react in a timely manner to events, conditions, challenges, opportunities and risks pertaining to the entity's operational, financial reporting, and compliance objectives. The risk assessment process involves determining the significance of the risk in monetary terms or in terms of the image or reputation of the entity, the probability of risk occurring, and how to mitigate the impacts of the risk to reduce exposures to acceptable levels. The COSO report assists management and internal auditors to establish an ongoing process of identifying changes in an entity's business environment and to take actions as necessary to manage risk

As per Ramamoorti, Bailey and Traver (2002) Risk assessment is a significant part of internal audit planning. As a systematic process for the identification and analysis of relevant risks threatening the achievement of an entity's objectives, risk assessment is helpful for assessing and integrating professional judgments about probable adverse conditions and/or events. The process of risk assessment includes identification of auditable activities, identification of relevant risk factors, and determination of their relative significance. An efficient and effective audit program is responsive to risk assessment, and is designed to ensure that proper controls are in operation that minimize or eliminate risk and exposure (Sawyer and Dittenhofer, 1996). Risk assessment in auditing involves pattern recognition because an unexpected deviation or variation is symptomatic of risk.

Comprehensive risk assessment is becoming valuable for success and survival of an organization (IARF, 2003). A survey conducted by (PwC, 2005A) showed that regulatory requirements diverted internal audit resources from other important

internal audit activities such as risk-based audits to assurance work. Failure to address key strategic and operational risks as well as compliance risk in an annual audit program undermines the effectiveness of the IAF. It diminishes its strategic value to key stakeholders and exposes the enterprise to internal auditors must not only be able to assess risks in their larger organizations, but they must also be able to complete complex risk analyses in their own IAF. Being able to self evaluate is important to the success of the IAF. To accomplish this, internal auditors need to possess increasing levels of critical thinking, analysis, decision making, and logic (IARF, 2003).

The internal auditing profession needs that” the internal auditing process provides assurance to management and the audit committee that risks to the organization are understood and managed properly” (IIA, 2000). This statement shows that the internal auditor requires identifying and assessing the risk of the company. Methods to identify problem areas differ among internal audit function, it ranges from judgmental selection methods and traditional audit universe coverage to using complex risk assessment methods.

Goodwin-Stewart and Kent (2006) stated that internal auditors can add value to the entity by providing assurance that its risk exposures are properly understood and managed. Internal audit should play a key role in monitoring a company’s risk profile and identifying areas to improve risk management processes.

To conclude Risk management is a dynamic process for taking all reasonable steps to find out and deal with risks that impact on our objectives. Risk assessment is viewed as very important part of internal audit function.

## **2.5 Risk- based internal auditing**

Since the issuance of the COSO Report (COSO, 1992), the intensity of the ties between internal auditing and risk management has increased, as the role of internal auditing has evolved from inspection to risk assessment, thus offering assurance to management and to audit committees that business risks are clearly understood and effectively managed (IIA, 2002–2004; Allegrini and D’Onza, 2003). Internal auditing supports the risk management process throughout the organization by providing tools and techniques for the identification and the evaluation of business risks, by auditing the risk management process and by co-ordinating risk reporting to senior management (IIA – UK and Ireland, 2002).

As per Danescu (2008) Risk Based Internal Audit is driven by risks and reports whether these are managed, the focus being on managing the future. Risk Based Internal Audit is targeted on: risk identification, prioritization of audit area and allocation of audit resources in accordance with risk assessment. Internal audit aims at providing an independent opinion about whether the objectives of one institution are achieved, and if not to define the circumstance that hinder from accomplishing them. In the context of value addition to the organization, there is increasing pressure for addressing exposure to risks, regulatory requirements for risk assessment and quantification play in these sense a great role. The shift from a traditional approach on internal audit is required by current trends of corporate governance and risk management.

Internal auditing can play valuable role in risk management. More specifically, the two most important ways in which the IAF provides value to an organization are: (1) by providing objective assurance that major business risks are being managed appropriately; and (2) by providing assurance that the risk management framework is operating effectively (Sarens, 2009).

The IIA's International Standards for the Professional Practice of Internal Auditing (standards) require the establishment of risk-based plans to determine that the priorities of the IAF are consistent with organizational goals. The standards require that internal audit activity evaluate and contribute to the improvement of the organization's risk management, control, and governance processes through consulting and assurance activities.

A company's commitment to risk management is also likely to be associated with the nature and extent of business risks to which it is exposed. While companies in all industries face a wide range of business risks, some industries are considered to be inherently more risky than others (Goodwin-Stewart and Kent, 2006).

The function of internal auditors has changed from a more financially-oriented role into one which has focused on internal controls and risk assessment through the last two decades. CEOs have generally perceived internal audit as having a financial function, while internal auditors had moved their emphasis into systems and risks (Cooper, Leung and Wong, 2006).

As per Nagy and Cenker( 2002) internal auditing process has to provide assurance to the management and audit committee that risks to the organizations are managed and understood properly. This requires the auditor to identify and assess the risk of an organization.

Goodwin-Stewart and Kent (2006) assert, internal audit can "help organizations identify and evaluate risks, moving the profession into the front line of risk management". There is a link between the use of internal audit and the company's commitment to sound risk management. A strong organizational commitment to managing risks requires the development of a risk-based culture



within the company. Such a culture is established by the practices of senior management and the board of directors (Goodwin-Stewart and Kent, 2006).

The core roles of internal audit with regard to Enterprise Risk Management (ERM) is providing objective assurance to boards that the principal business risks are being managed appropriately and that the internal control framework is functioning effectively (IIA, 2004). Although responsibility for ERM rests with management, there is a need for formal bodies such as internal audit and audit committees, which operate on an organization-wide basis to augment informal.

Boards are thus often heavily dependent on their internal audit function as this profession has moved to a higher, more business-oriented level than before. Therefore, IA run the risk of becoming involved in areas that either are not appropriate to them because of the threats to their independence or are beyond their capability (Fraser and Henry, 2007).

The changing role of internal auditors has determined the creation of new skills to perform activities that are more closely related to risk management and corporate governance. However, risk management requires different competencies from compliance; it needs auditors who are able to understand the main drivers of business performance, to deal with different sources of risk, to involve line managers and increase their confidence in risks and controls (Arena and Azzone, 2009).

The role of internal auditors must be clearly defined by organizations to ensure that they do set the risk appetite, impose risk management processes, or make decisions about risk responses (Hass, Abdolmohammadi and Burnaby, 2006).

To sum up, since the issuance of COSO (1992) the intensity between internal audits functions and risk management has increased.

## **2.6 Control risk self assessment**

CRSA is a tool that is used by businesses to promote risk management in teams, projects, through processes and generally throughout the organization. This tool can be used by the executive board, partners, middle management, and work teams and, of course, internal audit. In other words, CRSA is both a management tool and audit technique depending on what the CAE wishes to apply to the audit process and the views of the corporate body. In its purest form, CSA integrates business objectives and risks and control processes (Pickett, 2010).

All business systems have objectives, risks and ways of managing these risks. CRSA is a process for agreeing on the set objectives, identifying the inherent risks that stop one from achieving the objectives and then working out which risks are most significant. Allowing the work team (to assess their risk management strategy leads to a better understanding of the specific risks and controls in question, to more buy-in as people agree on their approach and to ensuring action plans are realistic. The CRSA approach reinforces the view that the responsibility for controls lies with those that operate them and those that manage the operations (Pickett, 2010).

Control self assessment is a process through which internal control effectiveness is examined and assessed. The objective is to provide reasonable assurance by doing those the work that all business objectives will met. The control self assessment process allows management and work team directly responsible for a business function to: participate in the assessment of internal control; evaluate risk; develop action plan to identified weakness; assess the likelihood of achieving business objectives. IAA believes Control self assessment provides information on internal control quality useful for management and internal auditors (Protiviti Inc., 2009 and Pickett, 2005).

Control risk self assessment is a mechanism to the assessment of internal controls within their work group. Based on this learning and adopting a shared vision within an organization rather than command and control (the traditional audit approach (Bou-Raad, 2000).

Control and Risk Self-Assessment (CRSA) is a derivation of CSA. It is a process specifically focused on risk identification and assessment). Typically, CRSA changes the focus of an audit review from a structured, objective appraisal of an organization's control systems, where internal auditors analyze and test transactions, to a workshop-based forum for discussion and understanding of strategic and business risks (Beretta and Bozzolan, 2009).

But it is not without disadvantage, particularly, higher management involvement represents one of its most significant limitations, as it can compromise the objectivity of the assessment. In order to limit this risk, overlaps between CRSA processes and internal auditing activities must be reduced by carefully defining the purposes and contents of each, in order to promote integration without confusion of roles. For this reason, some companies have opted for a clear distinction between staff resources dedicated to internal auditing and those assigned to CRSA activities, even creating two separate teams with different responsibilities, tasks, skills and methodologies, both reporting to the Chief Internal Auditor(Beretta and Bozzolan, 2009).

To conclude, control risk self assessment are used by business to promote risk management in teams. Control risk self assessment is both management tool and audit technique depending on what the CAE wishes to apply to the audit process.

## 2.7 Empirical evidence

Arena et al (2006) examined internal audit in Italian organization to describe the main characteristics of internal audit departments and to investigate the influence of enacted regulation on their development. They used a multiple case study approach and chosen six companies. Gathered evidence interview with chief internal auditors and reviewed different documents. The finding showed that regulations influence the development of internal audit. The structure and activities of internal audit department ranges from companies in which internal audit does not exist as standalone unit to internal audit has become a valuable tool for enhancing all business processes, beyond its institutional role of financial statement audit.

Arena and Azzone (2007) conducted a research on adoption and characteristics of internal audit departments. The study was based on survey data from 364 Italian companies. The study showed that characteristics of internal audit units in studied companies were significantly different. There are institutional adopters have highly developed internal audit unities familiar with internal control models. And, they pay high attention to competencies of their human resource. The normative adapters have advanced internal audit units, though smaller and younger than institutional adopters. The last one, non institutional adopters have smaller internal audit department: they do not prefer to any internal control models.

Fadzil, *et al.* (2006) studied internal auditing practice and internal control system. The purpose of this study was to see wither the internal auditing practice affect internal control quality. Two sets of questionnaires were used in the study. An internal auditing practice was measured by the items listed in the SPPIA and the internal control was measured by means of the statement on internal control: guidance for directors of public listed companies. The population used in this

study was all the companies listed in the Bursa Malaysia in 2001. This study used both descriptive and inferential analyses. It was found that management of internal audit department; professional proficiency, objectivity and review significantly influence the monitoring aspect of the internal control system. Scope of work and performance of audit work significantly influences the information and communication aspect of the internal control system while performance of audit work, professional proficiency and objectivity significantly influence the control environment aspect of the internal control system. The study also shows that management of internal audit department, performance of audit work, audit program and audit reporting significantly influences the risk assessment aspect of the internal control system. Lastly, performance of audit work and audit reporting significantly influences the control activities aspect of the internal control system.

Mihret and Woldeyohannis (2008) studied Value-added role of intern audit: an Ethiopian case study. The purpose of this study was to draw inferences – from the results of an Ethiopian public sector corporation (for-profit) case study – on how the attributes of a value-adding internal audit department would vary among organizations. Methodology used by the authors was case study strategy. The internal audit function of a public sector corporation was examined using an analytical framework derived from the literature. Research evidence was gathered distributing questionnaires to managers and internal auditors, conducting a semi-structured interview with the internal audit department manager, and reviewing documents. The results highlighted that traditional/compliance audit is dominant in the organization studied as contrasted with value-added auditing. The paper concludes that goals and strategies pursued and the level of risk faced by organizations to which internal audit provides service; appear to shape the attributes of a value-adding internal

audit department. The study also demonstrated that the quality of strategic planning for and marketing of, internal audit would influence the extent to which an appropriate value-added profile is attained in a particular context.

The two studies by Carcello *et al.* (2005a, 2005b) were among the first that focused on companies that had already set up an IAF. Using a sample of mid-sized US public companies, Carcello *et al.* (2005a) came up with evidence that internal audit budgets are positively related to company size; leverage; financial, service, and utility industries; relative amount of inventory; operating cash flows; and audit committee review of the internal audit budget. Carcello *et al.* (2005b) investigated changes in the IAF budget and absolute IAF size in a similar sample during the time of the major US accounting scandals (2001–02). They found larger budget increases among smaller companies as well as larger budget and staff increases in companies with greater financial resources or with greater liquidity risk. Finally, they also found evidence of industry differences in the change in internal auditing.

Goodwin-Stewart & Kent (2006) also considered the size of the IAF as a dependent variable in their study. More specifically, they found that the absolute number of internal auditors is associated with firm size (positively), the number of business segments (negatively), the use of a Big 5 auditor (negatively), the proportion of receivables and inventory (negatively), the number of audit committee meetings (positively) and leverage (negatively).

Sarens (2007) conducted a research using an agency model to explain the size of internal audit functions in a non-Anglo-Saxon environment. Data to test this model were collected from annual reports and a questionnaire sent to Chief Audit Executives. The results showed that the agency model has high explanatory power and reveals that the more diffused the ownership structure of

the company, the larger the company and the more reporting levels within the company, the larger the internal audit function. The results of this study confirm the growing monitoring role of internal auditing in contemporary corporate governance.

Sarens and Abdolmohammadi (2010) investigated (1) whether agency variables are associated with the relative size of the internal audit function (IAF); (2) whether the IAF is complementary to other monitoring mechanisms such as independent board members and an active audit committee; and (3) the impact of the control environment on the relative size of the IAF. They used data from a sample of Belgian firms. They found evidence of a monitoring role for the IAF in corporate governance. Specifically, the relative IAF size is positively related to management share ownership. Also, they found evidence for a substitution effect between independent board members and the IAF. Finally, it turns out that a supportive control environment also has a positive impact on the relative size of the IAF. Results can benefit companies interested in assessing the current size of their IAF and the role that it can play in corporate governance.

Christopher and Sarens (2008) examined the independence of the internal audit function, using data collected from Australian companies. More specifically, they analyzed “to what extent the relationships between the internal audit function and management and the audit committee creates threats to independence”. By using survey questionnaires sent to chief executive officers compared with the existing literature.

With respect to the internal audit function’s relationship with management, threats identified include: “using the internal audit function as a stepping stone to other positions; having the chief executive officer (CEO) or chief finance officer

(CFO) approve the internal audit function's budget and provide input for the internal audit plan; and considering the internal auditor to be a "partner", especially when combined with other indirect threats." With respect to the relationship with the audit committee, significant threats identified include CAEs not reporting functionally to the audit committee; the audit committee not having sole responsibility for appointing, dismissing and evaluating the CAE; and not having all audit committee members or at least one member qualified in accounting.

The result shows that "independence threats at the two levels, management and audit committee, to some extent compensate for each other". Independence guarantees provided by the audit committee are more prevalent in companies wherein management imposes more independence threats, and vice versa. This compensation effect suggests that the independence of the internal audit function needs to be judged in a broader context, specifically taking into account the relationship both with management and the audit committee rather than each individually.

Karagiorgos et al (2007) conducted document analysis study about internal auditing as a main tool for efficient risk assessment. The motivations for this article reflect a desire to investigate and enrich the importance of internal control in the effective risk management. The study was aimed at examining the relation between the effectiveness of the management depends and the efficient risk assessment. In this study was examining the conceptual approach of risk. Then, the three main components of audit risk are analyzed. And finally the researchers examined the use and importance of an audit risk model. The papers investigated the relation between the risk assessment and the materiality. The results indicate that internal audit is an essential factor in the efficient risk management and consecutively in the business survival and success.



Castanheira, Rodrigues and Craig (2010) examined company specific factors associated with adoption of risk-based auditing. They mailed questionnaires to all 96 internal auditors who are members of the Institute of Portuguese Internal Auditors in 2006. They try to identify possible reasons why internal audit prefer risk-based approaches over procedures-driven approaches and possible reasons for the involvement of internal auditing in risk management process. The likely reasons for voluntary use of risk-based internal auditing includes: Size, industry membership, private and public sector, internationalization of a company and listed companies.

Their finding showed that in t planning annual audit, “about 80 percent of respondents considered monetary materiality and the quality of internal controls, and about 50 percent considered the complexity of operations. Other audit planning considerations included the date of the last audit (30 percent), the degree of stability (23 percent), active liquidity (13 percent), and the quality of human resources (6 percent)”. Risk factors mentioned included performance indicators, image and reputation, and requirements of regulatory authorities are other factors considered in annual audit planning (Castanheira, Rodrigues and Craig, 2010).

In regard to the audit resources devoted to an operational audit, compliance audit financial audit and other audit-related activities, “operational audit generally requires most resourcing (37 percent of audit resources), with compliance audit second (16 percent) . The amount of audit resources devoted to risk assessment (14 percent) reveals the relative relevance of this kind of activity. Internal audit departments allocate a small amount of resources to review the reliability of public financial statements (10 percent)”. The most important audit objective was to assess the adequacy and effectiveness of the internal control

system (58 percent). Little attention was given to evaluate how business risks were managed. About 37 percent of entities stated that their audit objective was mixed. This indicated concurrent assessment by management of the business risks and the effectiveness of internal control systems (Castanheira, Rodrigues and Craig, 2010).

The adoption of risk-based auditing is related positively with entity size. Macro level risk-based auditing is statistically significant in international firms and in listed companies. The application of macro level risk-based auditing is strong (but not significant) in private firms, and entities in the finance industry. The findings for the finance industry are consistent with explanations of the broader risk-based internal auditing activities observed in finance institutions. Such activities are prompted by a higher maturity of business risk management in these institutions (Castanheira, Rodrigues and Craig, 2010).

Barac, Plant and Motubatse (2009) conducted the perception different management groups in South Africa, respondents were required to indicate the value-adding contributions made by their IAFs with regard to risk assessment, risk management and risk communication in their companies. "All respondents perceived that their companies' IAFs made high contributions to risk assessment (identifying and measuring the impact and the likelihood of significant risks in their companies) and risk management (designing, operating and monitoring an appropriate risk system in their companies)".

Sarens and Beelde (2006) conducted the internal auditors' perception about their role in risk management. The study was conducted in Belgium and purpose of this paper was to describe and compare in a qualitative way how auditors perceive their current role in risk management with in Belgian and US companies. To get information for this study chief audit executives of 10

companies were interviewed and different relevant documents were analyzed. The major finding of this study was the following; in Belgian case, internal auditors` focus on the acute shortcoming in risk management system create opportunities to demonstrate their value. Internal auditors were playing a pioneering role in the creation of a higher level of risk and control awareness and a more formalized risk management system. In the case of US companies, the internal auditors` objective evaluation and opinions were valuable input for the new internal control review and disclosure requirement mentioned in Sarbanes Oxley Act.

Fraser and Henry (2007) studied embedding risk management: structure and approaches in UK. The purpose aims to report into ways by which companies identify risk and embed risk management and control procedures and to report an interaction between internal audit and audit committee and their contribution to enterprise wide risk management. This study interviewed chief auditors and external auditors on the issues identified in the purpose statement. The study found that internal auditors were believed to have a role play but concerns were expressed about experience and independence. And also found that internal audit and risk management function should be separated to preserve internal audit independence and clarify internal audit role.

Steward and Kent (2000) examined the use of internal audit in Australian companies. The intent of this study was to explore the voluntary use of internal audit by public listing companies and to identify factors that lead listing companies to have an internal control function. The study hypothesized that “internal audit use is associated with factors related to risk management, strong internal control and strong corporate governance”. The study used a combination of survey data and corporate annual report and used descriptive

statistic. This study indicated that there was strong association between internal audit and the level of commitment to risk management.

The results of a series of interviews with officers in United Kingdom, Public listed companies (UK PLCs) and external auditors on the interactions between the internal audit and audit committees and their contributions to risk management indicated that the internal audit functions have been repositioned and moved from checkers to risk management facilitators and consultants (Fraser and Henry, 2007).

Jenny and Pamela (2006) found that there was a link between the use of internal audit and the company's commitment to sound risk management. The authors found support for their hypotheses predicting an association between the use of internal audit and a commitment to strong risk management.

Umor (2009) study on internal audit and risk management functions of Public Listed Companies in Malaysia found that the overall risk management efforts among companies of the internal audit department are found to be low compared to the risk management department. The author concludes that, such a low percentage might be due to the lack of commitment from top management.

Danescu, *et al.* (2010) showed internal audit aims at providing an independent opinion about whether the objectives of one institution are achieved, and if not to define the circumstance that hinder from accomplishing them. In the context of value addition to the organization, there is increasing pressure for addressing exposure to risks, regulatory requirements for risk assessment and quantification play in these sense a great role. The shift from a traditional approach on internal audit is required by current trends of corporate governance and risk management. They proposed a procedural guidance framework on how to

address problems regarding operational risk internal auditing by stressing particularities of banking organization working on Romanian territory. They concluded draw attention to the fact that acknowledging the regulation efforts undertaken by supervision authority for efficient risk management, a risk based internal audit can be implemented having in mind the advantages that this form of audit involves.

Pandit (2009) revealed that Risks in banking have increased manifold recently due to several phenomena like globalization of banking services, introduction of wide range of complex banking products, complexity in bank operations, and increasing adoption of information technology in banks. Risk management and mitigation techniques have, therefore, acquired paramount importance in banks. Banks are also interested in risk management as it can reduce the regulatory capital requirement under Basel II accord which is in the process of implementation in the banks. Risk Based Internal Audit (RBIA) is a technique that can play vital role in this case. This study, on the above background, has been undertaken to know the conceptual issues on RBIA, to identify the factors that call for adoption of RBIA in the commercial banks, to discover the problems on the way to adoption and to identify remedies of the problems. This study finally identified seven factors which call for adoption of RBIA such as adoption of risk based capital assessment standard (Basel-II), development of core risk management guidelines, increased emphasis on risk by the Basel Principles, globalization of banking business, introduction of complex banking products, increased awareness of the stakeholders about risk and increased adoption of information technology in banks. This study also revealed the lack of clear understanding of the RBIA system, lack of sufficient skilled manpower, absence of sufficient expert training program on RBIA, lack of initiative from bank management and absence of standard risk assessment formats to be the problems

on the way to adoption of RBIA. To overcome the problems, this study emphasized on capacity building, arranging frequent expert training program, conducting research, motivating bank management, adopting Basel Principles and undertaking awareness program. At this stage, Central Bank may take initiative for RBIA implementation in the commercial banks. Lessons from neighboring countries may facilitate the process of adoption

Zwaan, *et al.* (2009) examined the impact of involvement in Enterprise Risk Management (ERM) on internal auditors' willingness to report a breakdown in risk procedures and whether a strong relationship with the audit committee affects willingness to report. The study also investigated the use of ERM and the role of internal audit in ERM. The study uses an experimental design, manipulating (i) the internal auditor's involvement in ERM and (ii) the strength of the relationship between internal audit and the audit committee. Participants are 117 certified internal auditors. The study also gathers descriptive data on the use of ERM. The study indicates that a high involvement in ERM impacts internal auditors' willingness to report a breakdown in risk procedures to the audit committee. However, a strong relationship with the audit committee does not appear to affect willingness to report. The study also finds that the majority of organizations have recently adopted ERM. Internal auditors are involved in ERM assurance activities but some also engage in activities that could compromise objectivity.

Elliott and Edwards (2007) investigated the reasons why internal auditing is often perceived to not add value. They described the development of a new process model and approach that will improve the actual and perceived value of auditing. Methodology they used was process analysis, identified areas of potential inefficiency and conflict. The literature review identified the standards and guidance that influence the way internal auditing is managed and its current

trends. A questionnaire was sent to auditors and auditees to gain their views on audit effectiveness and quantify their perception of value. Questionnaire results showed variations in the perceived value of internal auditing, particularly of some key stages in the process. The management of internal auditing is too focused on program achievement, not the resulting value from improvement action.

Hermanson (2006) explored evidence about factors associated with the overall impact of enterprise risk management (ERM) on the internal audit function's activities. Based on responses from 122 organizations in several countries, they found that ERM has the greatest impact on internal audit's activities when (a) the organization's ERM process is more completely in place, (b) the CFO and audit committee have called for greater internal audit activity related to ERM, (c) the chief audit executive's (CAE) tenure is longer, (d) the organization is in the banking industry or is an educational institution, and (e) the internal audit function has provided more ERM leadership.

## **2.8 Chapter summary**

Internal auditing provide valuable role in organizations, it is one part of internal control system of a company to investigate effectiveness and efficiency of management activity. Structure of internal audit function can be affected by; enacted regulations, company structure, age of an organization, organizational status, activity it intends to perform and others. Activities of internal audit function different among organizations depending on different attributes, through time changed from traditional activities to consulting and value added service. Therefore the size of internal audit function depends on the size of the organization and the activity it performs, the larger companies have in-house facilities for internal audit purpose.

Generally reporting line and positioning of internal audit function is ever changing, but internal audit has a broader role by serving both audit committee and company management. It is better if the chief auditor should report functionally to audit committee and administratively to chief executive officer. And the scope of internal audit varies among organization depending on the environment in which the organization operates.

Risk management is a dynamic process for taking all reasonable steps to find out and deal with risks that impact on our objectives. Risk assessment is viewed as very important part of internal audit function. Since the issuance of COSO IC-IF the intensity between internal audits functions and risk management has increased. Control risk self assessment are used by business to promote risk management in teams. Control risk self assessment is both management tool and audit technique depending on what the CAE wishes to apply to the audit process.

Internal auditing practice and risk assessment differ contextually and internal audit is an essential factor in the efficient risk management and consecutively in the business survival and success. Moreover, it is important to notice that the Ethiopian environment is different from the developed countries environment where the internal auditing profession is more developed and where companies are subject to more stringent corporate governance regulations. It is better to see the problem in developing countries context to enrich and extend the understanding of internal auditing and risk assessment practices in Ethiopian public enterprises context.

By utilizing an analytical framework from the extant literature and empirical evidence from other countries context, the research elaborated in more detail



internal auditing practices and risk assessment and aims to draw inferences regarding the use of control self-assessment methods and the use of risk-based auditing within the selected Ethiopian public enterprises context.

## CHAPTER THREE

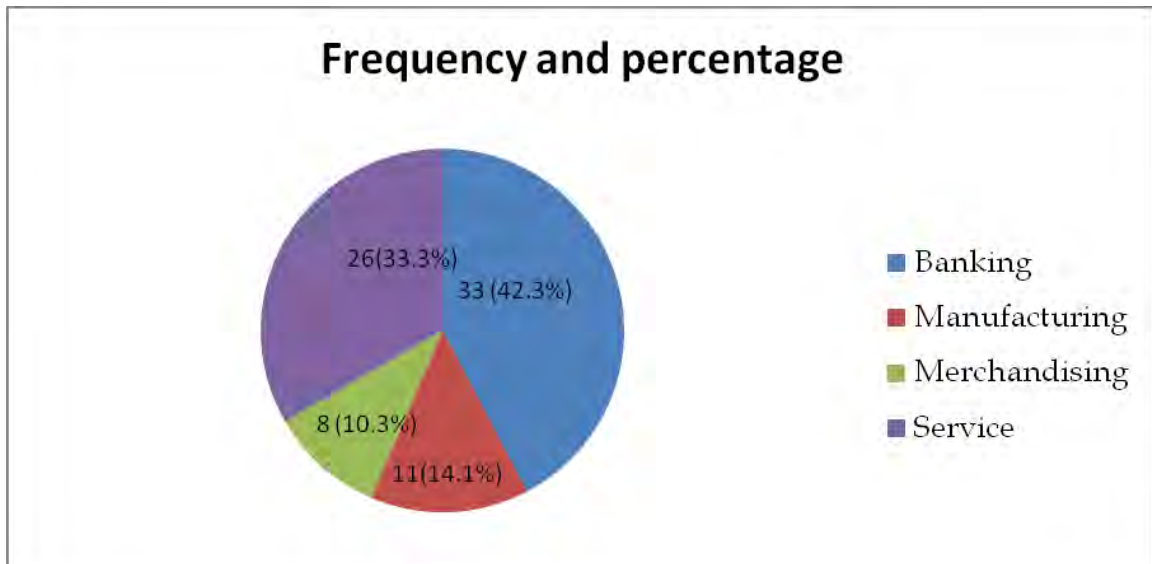
### Data Presentation and Analysis

#### 3.1 Introduction

In this section the researcher discussed data analysis and discussion parts of the paper. Questionnaire results showed that, 20 companies have filled the questionnaire. They all have setup internal audit function. Totally 100 questionnaires were distributed, but 81 questionnaires were collected out of which 78 were usable responses, which were response rate of 78%.

#### 3.2. Main business of the organization.

Figure 3.1 Organizational type



Source: Survey results

From 78 respondents 33(42.3%) were from the banking sector, 11(14.1%) were from manufacturing organizations, 8(10.3%) were from merchandizing and the remaining were from service providing organizations, which consisted of 26(33.3%) of total respondents. Compared to other sectors banking sector has well structure internal audit function, this is due to the fact that banking and

insurance companies are the pioneers of internal audit activities. This finding is similar to Carey et al (2000) and Allegrini, M. and D'Onza, G. (2003).

### **3.3 Structures and activates of internal audit function**

#### **3.3.1 Audit department size**

The sample included a few companies with large internal audit departments, which were 5(25%) of the total sample, from those companies three were from banking sector and the remaining two were from service giving organizations. whereas most companies have a very small audit unit. Actually, in most cases, the internal audit department has fewer than 10 employees, which consists of 15(75%) the sample, this difference was due to size of the organization and the extent and frequency of its activities. As per PPESA (2005) the internal audit function at least should have audit department head, one internal auditor, facilities required to operate the function and budget.

The above results revealed that, Banks usually have by far a large internal audit function than other firms. This result seems consistent with international practices, as revealed by a survey of the 'Basel Committee on Banking Supervision' carried out in 2002 and Allegrini, M. and D'Onza, G. in 2003.

#### **3.3.2 Position in the organizational structure and reporting line**

In this respect, the researcher tries to analyzed two different subject matters: internal auditor's hierarchy and reporting line of the internal audit function depends on. Based on the analysis more than half of respondents said that their unit is responsible for Board of directors which consists of 57((73.1%) of the respondents. 8(10.3%) of respondents said that their organization have audit committee responsible for internal audit activity. Few respondents said that their hierarchy is depends CEO of the organization, which, consists of 7(9%) of total

respondents. The remaining respondents said that hierarchy of their internal audit function is not clear.

With respect to reporting line majority of the respondent indicated that they report directly to Board of Director and in absence of the Board they ultimately reported to senior executive management. This is similar with the recent findings that the degree of interaction between the Board of directors (Audit committee) and internal audit functions has increased dramatically in recent years. This trend reflects an increased focus on corporate governance, greater scrutiny of risk management, and more direct audit committee oversight of internal audit (PWC, 2008).

**Table 3.1**Hierarchy of internal audit function

	Frequency	Percent	Valid Percent	Cumulative Percent
Board of directors	57	73.1	77.0	77.0
Chief Executive Officer	7	9.0	9.5	86.5
Audit Committee	8	10.3	10.8	97.3
others	2	2.6	2.7	100.0
Total	74	94.9	100.0	
Missing System	4	5.1		
Total	78	100.0		

Source: Survey results

The IIA Advisory 1110-2, Chief Audit Executive (CAE) reporting lines, states “the chief audit executive should report to a level within the organization that allows the internal audit activity to accomplish its responsibility.” The advisory also states that

“the IAA believes strongly that to achieve necessary independence, the CAE should report functionally to the audit committee or its equivalent. For administrative purpose, in most circumstances, the CAE should report directly to chief executive officer (CEO) of the organization.”

As per public enterprise internal audit guide line, internal audit function has equivalent power as other executive bodies of an organization (PPESA, 2005). The finding was supported by theoretical and empirical evidences and it is supported by supervising agencies guide line.

### **3.3.3 Types of auditing**

The survey also aimed at analyzing planned annual auditing activity is devoted to (in percentage) the following audit types:

- Financial audit for public financial statements
- Audit of the management information system
- Operational audit
- Compliance audit
- Special projects
- IT Audit
- Fraud investigation
- Risk assessment

Results in table 3.2 shows that operational audit generally prevails (31% of audit resources and time); especially in where there are large internal audit function. The scope of internal audit generally regards the suitability of procedures from the perspective of economy, effectiveness, and efficiency. Compliance audit is the second relevant scope of auditing activities (24%); particularly, in financial institutions and in smaller companies, auditors review the systems, which have been established to ensure compliance with legal and regulatory requirements,

policies and procedures. Financial audit seems to be considered the sole responsibility for external auditors; in fact, internal audit departments allocate small resources for the review of the reliability of public financial statements (3%). Instead, the review of management information systems, IT Audit and Fraud investigation receives a higher percentage of resources (7%, 8% and 9% respectively). The size of audit resources devoted to risk assessment (11%) reveals the relevance of this kind of activity, especially in large Ethiopian public enterprises.

Generally it was found that operational audit requires most resources, with compliance audit second important audit type (Table3.3). The amount of audit resources devoted to risk assessment reveals the relative relevance of this kind of activity. Public enterprise internal audit guide line require all of audit activities listed above to be performed, but many public enterprises specially smaller one were performed compliance and operational audit in their annual audit activities. The result was (consistent with Allegrini and D'Onza, 2003 and Castanheira, *et al.* 2009).

**Table 3.2** Types of audit

types of audit	planned annual auditing in percentage
Financial audit for public financial statements	3%
Audit of the management information system	8%
Compliance audit	24%
Operational audit	31%
Special projects	6%
IT Audit	8%
Fraud investigation	9%
Risk assessment	11%
Others	1%
Total	100%

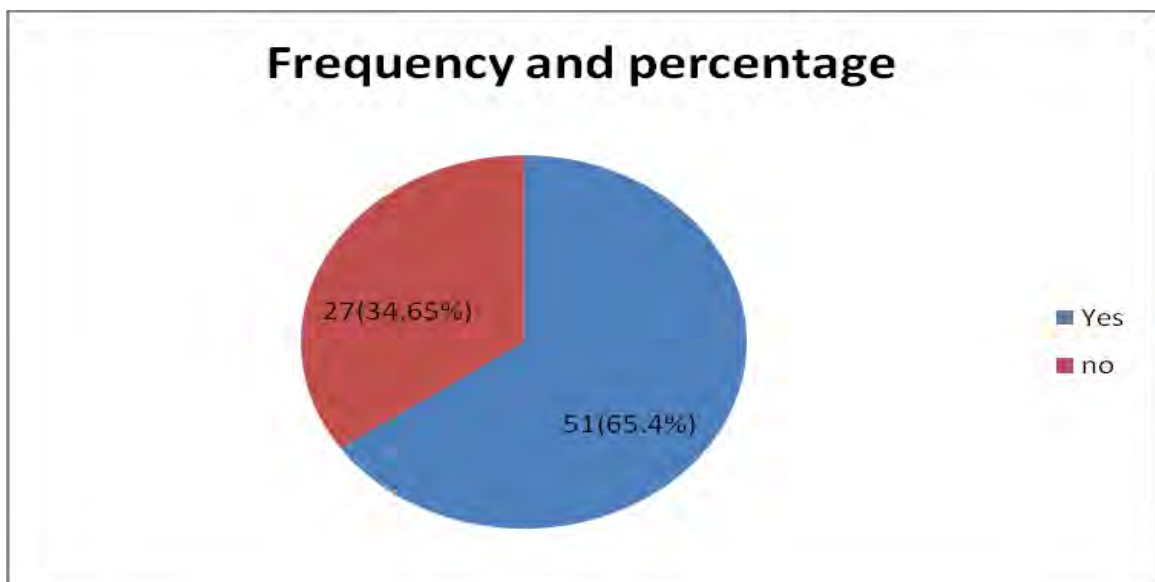
Source: Survey results

### 3.4 Usage and importance of control models

The researcher wanted to assess the awareness and application of control models (COSO, and ERM, etc.) in Ethiopian public enterprises. Control models have broadened the view of internal control and have strengthened the concept of control environment, risk assessment, monitoring and continuous improvement as key control principles.

#### 3.4.1 Usages of control models

**Figure 3.2** Usage of control models



Source: Survey results

27(34.6%) of respondents do not believe that control models provide an effective basis for designing the internal control system, and therefore they have not integrated (COSO or ERM) into their audit process. Their control system seems to follow the traditional foundation of specified control process, procedure and structure, and the focus is entirely addressed to monitoring and assessing control activities. Many companies 51(65.4%) were incorporated COSO or ERM



principles in the internal control policies and procedures. They believe that control models provide an effective basis for designing the internal control system.

### 3.4.2 Importance of control models

**Table 3.3** Descriptive statistics of importance of control models

Questions related to control models	N	Mean	SD
Control models provide an effective basis for designing the internal control system	78	3.9103	.80881
Control models provide an effective basis for control system reviews	78	3.8462	.77421
Control models provide an effective support for the reporting of internal auditing findings	78	3.8462	.89844
Control models are used widely in your organization	78	3.3846	.97008
Internal auditors in your organization address qualitative issues in their work	76	3.6447	.84386
Valid N (listwise)	76		

Source: Survey results

**Note:** N- number of respondents; response measurements.....5 - Strongly agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly disagree

The mean response of five questions under importance of risk control models were more than 3.00 and the standard deviation were also less than 1.00, which indicates that the respondents perception were close to one other. Based on table

3.3 results internal audit units in Ethiopian public enterprises agreed with the importance of control models. It is worth mentioning that the relevance of the control models for designing the internal control system, for effective control system review, to support the reporting of internal audit function and to address qualitative issue in audit work, even if there is subjectivity involved in this kind of audit. Some respondents stated that informal controls are not tangible and, therefore, are not subject to the verification demanded by traditional auditing methodology.

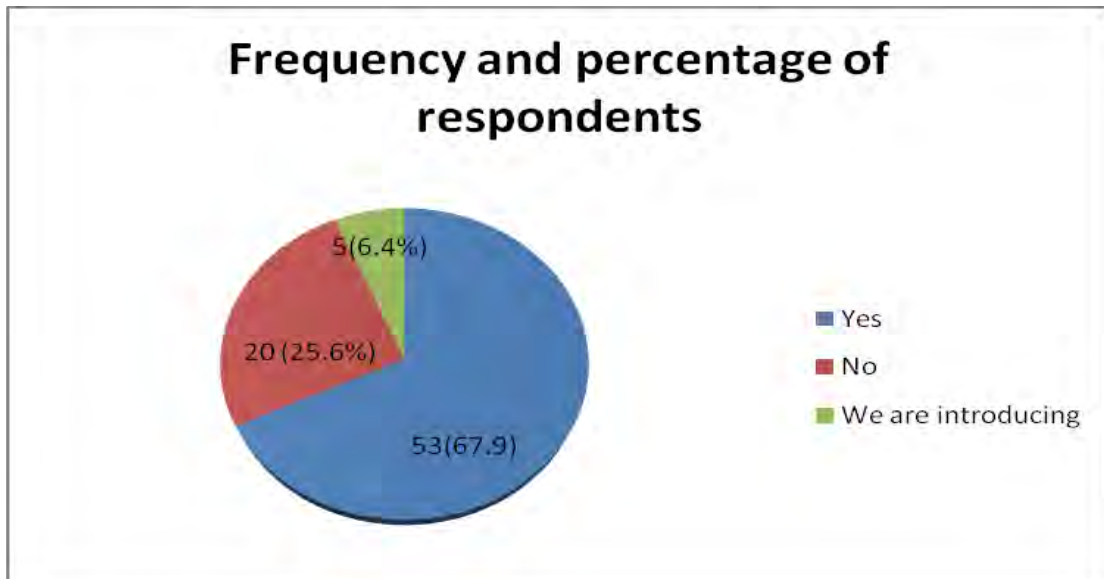
### **3.5 Risk assessment**

Risk assessment is a method of identifying, measuring and prioritizing risk. It is a prerequisite of risk management, which is the process of determining whether or how much of the risk is acceptable and what actions should be taken in order to avoid, to share or to control the risk.

To protect and add value to the organization, different steps of risk assessment should be approached in a systematic way. The survey particularly aims at identifying the application of risk assessment models, the main participants involved and the objectives pursued.

### 3.5.1 Application of risk assessment methods

Figure 3.3 Application of risk assessment methods



Source: Survey results

As one can see from figure 3.3 53 respondents which consists of 67.9% of usable responses said that their internal audit function implemented formal risk assessment process. 20(25.6%) revealed that their unit not yet implement formal risk management process. The remaining 5(6.4%) said they are on the way to implement it.

The implication of result in figure 3.3 is that many Ethiopian public enterprises were introduced formal risk assessment process in their internal audit function, and few enterprises were on the way to introduce formal risk assessment process, which shows that higher attention is given to risk management.

### 3.5.2 Main participants in risk assessment

There were five questions under participants in risk assessment process and risk based auditing. With respect to main actors of risk assessment in organizations

only two questions out of five, which were internal auditors in co-operation with the line management and management during the control risk self assessment facilitated by internal auditors, had a mean response of more than 3.00.

**Table 3.4** Descriptive statistics of main participants in risk assessment

	N	Mean	SD
Internal auditors in co-operation with the line management	78	3.3077	1.12015
External consultants in co-operation with the line management and with the support of internal auditors	76	2.8289	1.11221
Management during the Control Risk Self Assessment facilitated by internal auditors	77	3.3247	1.06920
Internal auditors in co-operation with external consultants but without the involvement of the line management	77	2.5974	1.04201
No role of internal auditors	76	2.1184	1.17720
Valid N (listwise)	73		

Source: Survey results

**Note:** N- number of respondents; response measurements.....5 - Strongly agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly disagree

The remaining three questions were a mean response of less than 3.00 and standard deviation of all five questions were more than 1.00. Especially the last question which states about no role of internal auditors in implementation of risk

assessment had mean response of 2.1184 and standard deviation of 1.17720. This shows that internal auditor's role is vital but the response was far way from one other.

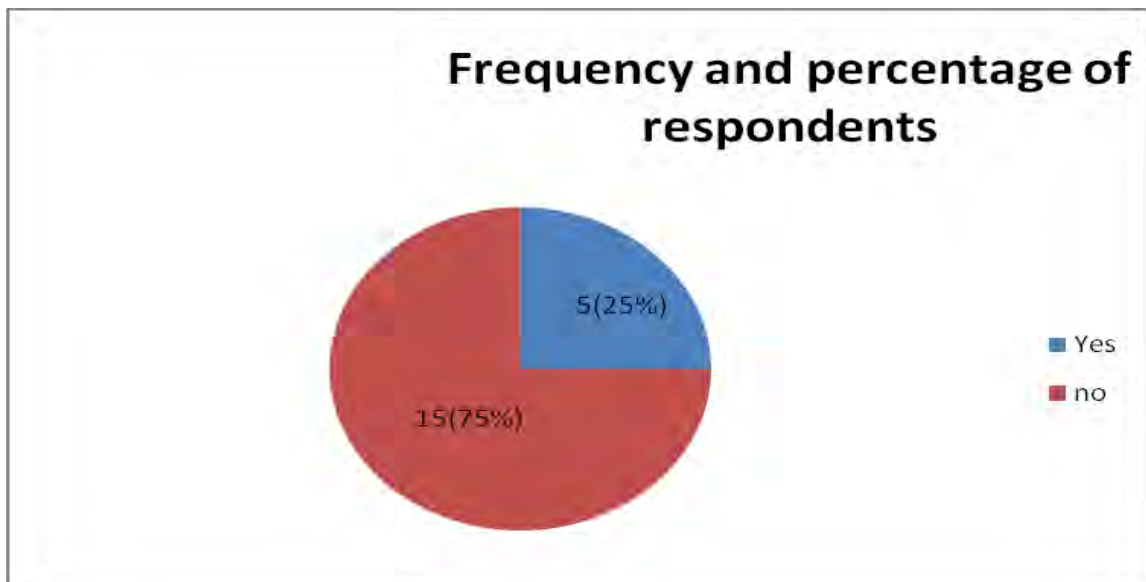
The implication of the above result showed that internal auditors in co-operation with the line management and management during the Control Risk Self Assessment facilitated by internal auditors provide a vital role. But, external consultants in co-operation with the line management and with the support of internal auditors, internal auditors in co-operation with external consultants but without the involvement of the line management have little or no role.

### **3.5.3 Existence of risk management department**

From 20 public enterprises considered in this study 5(25%) have risk management department and the remaining 15(75%) have no formal risk management department. From five public enterprises which have risk management department three of them were from banking sector and the remaining two were from service sector.

The data implies that risk management is very important in banking sector than other sectors. This is due to the fact that, Risks in banking have increased manifold recently due to several phenomena like globalization of banking services, introduction of wide range of complex banking products, complexity in bank operations, and increasing adoption of information technology in banks. Risk management and mitigation techniques have, therefore, acquired paramount importance in banks. Banks are also interested in risk management as it can reduce the regulatory capital requirement under Basel II, which is in the process of implementation in the banks (Pandit, 2009). In organization where, there no risk management department, internal audit department perform all activities related to risk management.

**Figure 3.4** Existence of risk management



Source: Survey results

### **3.5.4 The relationship between internal audit functions and risk management**

The relationship between risk management and internal audit department differ among Ethiopian public enterprises under consideration.

There were two different opinions with respect to banks; one respondent stated that, actually the two departments have no strong relationship; this is because the risk management units' task is to identify the level of risk and provides assurance for each department and branch but internal audit department gives assurance to the management committee. On the other hand, other respondent respond that, the internal audit process might prepare audit plans based on the reports of risk management process report; on the other hand, the risk management process may assess the risk based on internal audit process report and feedback of the management.

With respect to service providing public enterprise a respondent said that the relationship between internal audit and risk management is not as such

integrated and a respondent further stated that, there is risk management and insurance team in the organization. However its relationship with the internal audit team is not formally set and clear. But, the internal audit team recognizes the risk and insurance team as an auditee.

But, other respondent stated that they have risk management department known as risk and insurance management department. The relationship between the departments is that internal audit department uses information from risk and insurance department to assess risk and to issue reports and recommendations related to risk of the organization.

Finally, a respondent from another service organization stated that there is no risk management department in their organization; however there is a risk management committee level. Hence the risk identified by the committee other than identified by internal audit function is also used as an input for risk based audit activities.

The above discussions revealed that the relationship is not uniform between the two departments. In some organizations there is little relationship but in some organizations the relationship is somewhat good. But in some organizations there is no risk management department; however there is risk management committee level. The risks identified by the committee are used as an input for risk based audit activities.

### 3.5.5 Objectives of risk assessment

**Table 3.5** Descriptive statistics of Objectives of risk assessment

	N	Mean	SD
The risk assessment activity have implemented in all the functions and processes of the organization	78	3.2308	1.09216
Developing a systematic approach that management could use in dealing with the risk	78	3.2051	1.02386
Identifying most critical areas to define the audit plan (macro risk assessment)	78	3.3333	1.00216
Embracing risks in individual audit (micro risk assessment)	78	3.3462	.92339
Complying with the regulatory requirement	78	3.5897	.85942
External risk reporting and Value creation	78	3.2564	.90361
Valid N (listwise)	78		

Source: Survey results

**Note:** N- number of respondents; response measurements.....5 - Strongly agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly disagree

There were six questions under risk assessment objectives. All questions had a mean response of more than 3.00. Standard deviations of the first three questions were more than 1.00, which were the risk assessment activity have implemented in all the functions and processes of the organization, developing a systematic approach that management could use in dealing with the risk and identifying most critical areas to define the audit plan (macro risk assessment). This indicates



that the respondents perception were far way from one other. The remaining three questions which were embracing risks in individual audit (micro risk assessment), complying with the regulatory requirement and external risk reporting and value creation had standard deviation of less than 1.00. On the other hand standard deviation of less than 1.00 showed that respondent's perceptions were closed to each other. The result in table 3.5 revealed that on average the respondents agreed up on the objective of risk assessment.

### **3.6 Risk based auditing**

There is increasing pressure for addressing exposure to risks, regulatory requirements for risk assessment and quantification play in these sense a great role. The shift from a traditional approach on internal audit is required by current trends of corporate governance and risk management.

#### **3.6.1 Success and implementation of risk based internal auditing**

Five questions under successfulness and implementation of risk based internal auditing had mean response of more than 3.00 and out of five questions four had the standard deviation of less than 1.00, the remaining one question had a standard deviation of 1.02481 which was about management support at the top level.

The result in table 3.6 indicated that respondents on average agreed on the issues and successful implementation of risk based internal auditing. To implement successfully the following conditions play a vital role: clear definition and communication of objectives, culture and attitudes towards controls and risks, clear identification of processes and their owners, Management support at top level and Development of a formal risk assessment model.

**Table 3.6** Descriptive statistics of successful implementation of RBIA

	N	Mean	SD
Clear definition and communication of objectives	77	3.4156	.92268
Culture and attitudes towards controls and risks	77	3.4156	.90830
Clear identification of processes and their owners	77	3.3636	.91636
Management support at top level	77	3.3636	1.02481
Development of a formal risk assessment model	77	3.4156	.99142
Valid N (listwise)	77		

Source: Survey results

**Note:** N- number of respondents; response measurements.....5 - Strongly agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly disagree

### 3.6.2 Preparation of audit plan

The mean response of three questions under preparation of audit plan were more than 3.00 and the standard deviation of two questions were more than 1.00, which were requests of senior management and control-based approach, which indicates that the respondents' perception were far away to one other. The remaining question "risk based approach" had standard deviation of less than 1.00, which reveals that the respondents' perception were close to one other.

The results in table 3.7 revealed that internal audit function use all three approaches to plan its annual audit, but risk based approach is the most important as compared to request of senior management and control based approach. This finding was (consistent with Allegrini and D'Onza, 2003; IIA - UK and Ireland, 2005; and Castanheira et al, 2009).

**Table 3.7** Descriptive statistics of preparation of audit plan

	N	Mean	SD
Requests of senior management	77	3.3636	1.05018
Risk-based approach	78	3.7051	.88434
Control-based approach	78	3.5128	1.00316
Valid N (listwise)	77		

Source: Questionnaire results

**Note:** N-number of respondents; response measurements.....5 - Strongly agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly disagree

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### **3.6.3 Factors associated with the adoption of risk-based internal auditing**

The mean response of six questions under factors associated with the adoption of risk-based auditing had more than 3.00 and out of six questions two had the standard deviation of less than 1.00, these were impact of activities on the corporate image and complexity of operations. This indicates that the perception of responses were close to one other .The remaining four questions had a standard deviation of more than 1.00.which indicates that the perception of respondents were close to each other.

The result in table 3.8 showed that all factors were important factor in the adoption of risk based internal audit. Specially, impact of activities on the corporate image and adequacy of internal controls are very important factors, the finding was (consistent with Castanheira et al, 2009).

**Table 3.8** Descriptive statistics of factors associated with adoption of RBIA

	N	Mean	SD
Professional competence of the human resources	77	3.4545	1.03295
Changes in the organizational structure	77	3.4286	1.10535
Impact of activities on the corporate image	77	3.6104	.86078
Complexity of operations	77	3.5195	.99486
Adequacy of internal controls	77	3.7662	1.01172
Degree of automation	77	3.4935	1.05909
Valid N (listwise)	77		

Source: Survey results

**Note:** N- number of respondents; response measurements.....5 - Strongly agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly disagree

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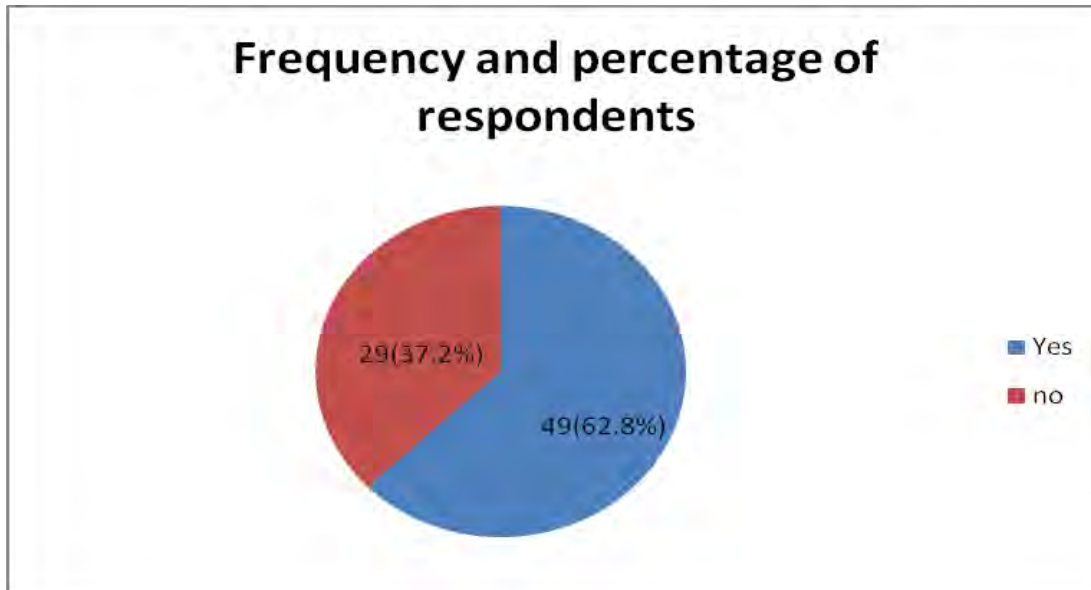
### 3.7 Control risk self assessment

The last section of the analysis aimed at determining the state of the art of Control Risk Self Assessment (CRSA) in Ethiopian public enterprises. CRSA is a systematic and participative technique used to identify, classify, assess measure and evaluate risks and controls.

Actually, different techniques are used in the organizations to identify and assess both risks and controls, called Control Self Assessment (CSA), Control Risk Self Assessment (CRSA), Risk and Control Self Assessment (RCSA), Business Self Assessment (BSA), Management Self Assessment (MSA). Each of these techniques is based on a different methodology and has a different focus, but for the purpose of this paper, the researcher does not attempt to identify which

method is adopted by Ethiopian public enterprises and the research use the term CRSA (to include both CSA/CRSA and the other techniques).

**Figure 3.5** Application of control risk self assessment



Source: Survey results

However, a number of respondents 29(37.2%) do not believe that control risk self assessment provide an effective basis for designing and implementation of good internal audit function and internal control system, and therefore they have not used control risk self assessment into their audit process. Their control system seems to follow the traditional foundation of specified control process, procedure and structure, and the focus is entirely addressed to monitoring and assessing control activities. Most companies 49(62.8%) were incorporated control risk self assessment principles in the internal control policies and procedures. The finding was (consistent with Allegrini, M. and D'Onza, G. 2003).

## CHAPTER FOUR

### Summary of findings, Conclusions and Recommendations

#### 4.1 Introduction

The purpose of this chapter is to delineate the summary of findings, conclusion and some recommendations. Overall, this chapter is to depict chapter 1 to 3 collectively and to synthesize the contribution of this study through conclusion.

#### 4.2. Summary of findings

The results showed that 75% of enterprises internal audit functions under consideration have less than 10 internal auditors. Banks have by far a large internal audit function than other firms; this is due to the nature of operation. Majority of the respondents indicated that they report directly to Board of Director and in absence of the Board they ultimately reported to senior executive management.

It was also found that operational audit requires most resources, with compliance audit second important audit type. The amount of audit resources devoted to risk assessment is 11%, which reveals the relative relevance of this kind of activity. Public enterprise internal audit guide line require all of audit activities listed above to be performed, but many public enterprises specially smaller one were performed compliance and operational audit in their annual audit activities.

27(34.6%) of respondents have not integrated control models (COSO or ERM) into their audit process. Their control system seems to follow the traditional foundation of specified control process, procedure and structure, and the focus is entirely addressed to monitoring and assessing control activities. Many

companies 51(65.4%) were incorporated control models in the internal control policies and procedures. Internal audit units in Ethiopian public enterprises agreed with the importance of control models. It is worth mentioning the relevance of control models for designing the internal control system and effective control system review.

Risk assessment is a method of identifying, measuring and prioritizing risk. The questionnaire results showed that many Ethiopian public enterprises were introduced formal risk assessment process in their internal audit function, and few enterprises were on the way to introduce formal risk assessment process, which shows that higher attention is given to risk management. The internal auditors in co-operation with the line management and management during the Control Risk Self Assessment facilitated by internal auditors provide a vital role to implement formal risk assessment process. But, external consultants in co-operation with the line management and with the support of internal auditors, internal auditors in co-operation with external consultants but without the involvement of the line management have little or no role in risk assessment process.

Risk management is very important in banking sector than other sectors. This is due to the fact that, Risks in banking have increased manifold recently due to several phenomena like globalization of banking services, introduction of wide range of complex banking products, complexity in bank operations, and increasing adoption of information technology in banks. The relationship between risk management and internal audit department differ among organizations under consideration.

To implement risk based internal auditing successfully the following conditions play a vital role: clear definition and communication of objectives, culture and attitudes towards controls and risks, clear identification of processes and their owners, Management support at top level and Development of a formal risk assessment model.

Thus data analysis showed that risk assessment is very important to develop a systematic approach that management could use in dealing with the risk, to identify most critical areas to define the audit plan (macro risk assessment), to embrace risks in individual audit (micro risk assessment), to comply with the regulatory requirement, and for external risk reporting and value creation.

The result of the study also revealed that internal audit functions in Ethiopian public enterprise use; requests of senior management, risk-based and control-based approaches to plan their annual audit. But risk based approach is the most important as compared to request of senior management and control-based approach. Impact of activities on the corporate image and adequacy of internal controls are very important factors in risk based internal auditing.

Finally a number of respondents 29(37.2%) do not believe that control risk self assessment provide an effective basis for designing and implementation of good internal audit function and internal control system, and therefore they have not used control risk self assessment into their audit process. Their control system seems to follow the traditional foundation of specified control process, procedure and structure, and the focus is entirely addressed to monitoring and assessing control activities. Most companies 49(62.8%) were incorporated control risk self assessment principles in the internal control policies and procedures.



## 4.2 Conclusions

Most prior literature on aspects of internal auditing and risk assessment has focused on empirical evidence from the Anglo-American world, Europe and Asian pacific countries. The evidence the researcher report from Ethiopia African country should be timely and facilitate comparisons of internal auditing practices in other domains. More importantly, the evidence the researcher reveals internal auditing and risk assessment practices in Ethiopia. The evidence should aid understanding of control governance frame works, internal audit function structure and activities, audit department size, audit department position in organization structure and reporting lines, types of auditing control models, risk assessment, risk assessment models, main participants in risk assessment , risk-based auditing. Knowledge of these factors should help stakeholders to assess the nature of internal auditing and risk management in Ethiopian public enterprises.

Literature review highlights that internal control is a process effected by an entity`s board of directors, management and others within an organization. It should provide reasonable assurance regarding the achievement of objectives in the following categories: effectiveness and efficiency of operations; reliability of financial reporting and compliance with laws and regulations. And Internal audit is considered as part of internal control system of a company yet must also remain independence. The structure and activities of internal audit differ among organizations; this is because the structure and activities of internal audit functions affects its overall activities, which, intends to operate.

The implementation of a formal process of risk management by an entity helps it to obtain an overview of the different risks (and risk interdependencies) to which they are exposed, reduces the reaction time of a business to risk-related

issues, creates a positive culture of risk, and improves the process of risk mitigation. Risk-based internal auditing helps companies to practice effective risk management because it incorporates principles of risk management throughout the audit process, both in the annual planning process, and in planning each audit engagement.

Privatization and public enterprise supervising agency requires all public enterprises to have internal audit function and all enterprises under consideration have internal audit unit. But, Banks have by far a large internal audit function than other firms; this is due to the nature of operation. Majority of the respondents indicated that they report directly to Board of Director and in absence of the Board they ultimately reported to senior executive management.

The amount of audit resources devoted to risk assessment reveals the relative relevance of this kind of activity. Results also showed that many Ethiopian public enterprises were introduced formal risk assessment process in their internal audit function, and few enterprises were on the way to introduce formal risk assessment process.

### **4.3 Recommendations**

Public enterprise internal audit guide line require all of audit activities listed above to be performed, but the study revealed that many public enterprises were performed compliance and operational audit in their annual audit activities as compare to other audit types. On average 11% of their annual audit plan is devoted to risk assessment. To get the benefits of risk based auditing and to manage an organization properly it is better to increase the amount of budget and time devoted to risk assessment.

The relationship between internal audit function and risk management unit differ is very minimal in Ethiopian enterprises under consideration. The researcher also found that the interaction is not as such to implement proper risk assessment and risk based auditing. Therefore, proper integration should be needed between the two departments in order to manage organizational risks properly.

Internal audit functions under consideration agreed with the importance of control models for designing the internal control system review. Therefore it is better to incorporate control models for those who are not used it before for effective risk assessment.

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# Appendix

## Questionnaire

Mohammed Seid Ali  
Addis Ababa University  
Addis Ababa

Dear sir/madam

The aim of this questionnaire is to seek information regarding Internal Audit practices in Ethiopian public Enterprise. The questionnaire will distribute to all internal auditors of 20 purposely selected public enterprises. The information you provide in response to the items in the questionnaire will be used as part of the data needed for a study of *Internal Audit and risk assessment in Ethiopian Public Enterprises*.

I would like to assure you that the information you provide will be accessible only to the academic purpose. Your involvement is regarded as a great input to the quality of the research results. Hence, I believe that you will enlarge your assistance by participating in the study.

Your truthful and thoughtful response is invaluable.

Thank you for your participation

Kind regards

*Mohammed Seid*

April, 2011

**Section I: General information**

Please indicate the following by ticking (√) on the spaces in front of the response options:

1. Main business of the organization:

Finance/banking ( )

Merchandising ( )

Manufacturing ( )

Service ( )

2. Who does the chief internal auditor hierarchically depend from?

Board of Directors ( )

Line management ( )

Chief Executive Officer ( )

Others (please specify ( )

Audit committee ( )

3. How much of your planned annual auditing activity is devoted to: (in percentage). Write the percentage in front of each activity:

Financial audit for public financial statements\_\_\_\_\_

Audit of the management information system\_\_\_\_\_

Operational audit\_\_\_\_\_

Compliance audit\_\_\_\_\_

Special projects\_\_\_\_\_

IT Audit Fraud investigation\_\_\_\_\_

Risk assessment\_\_\_\_\_

Others\_\_\_\_\_

Total\_\_\_\_\_100%

4. Who shall the director of the internal auditing department periodically report to?

\_\_\_\_\_  
\_\_\_\_\_.



	SD	D	N	A	SA
<b>A. Risk assessment control models</b>					
Control models provide an effective basis for designing the internal control system	( )	( )	( )	( )	( )
Control models provide an effective basis for control system reviews	( )	( )	( )	( )	( )
Control models provide an effective support for the reporting of internal auditing findings	( )	( )	( )	( )	( )
Control models are used widely in your organization	( )	( )	( )	( )	( )
Internal auditors in your organization address qualitative issues in their work (for example, communication, management information, ethical issues, and equal opportunities)	( )	( )	( )	( )	( )
<b><i>B. Risk assessment practices and risk-based auditing</i></b>					
In your organization, the risk assessment is carried out by:					

Internal auditors in co-operation with the line management	( )	( )	( )	( )	( )
External consultants in co-operation with the line management and with the support of internal auditors	( )	( )	( )	( )	( )
Management during the Control Risk Self Assessment facilitated by internal auditors	( )	( )	( )	( )	( )
Internal auditors in co-operation with external consultants but without the involvement of the line management	( )	( )	( )	( )	( )
No role of internal auditors	( )	( )	( )	( )	( )
Related to activities and main objectives of the risk assessment activity in the organization.					
The risk assessment activity have implemented in all the functions and processes of the organization	( )	( )	( )	( )	( )



Developing a systematic approach that management could use in dealing with the risk	( )	( )	( )	( )	( )
Identifying most critical areas to define the audit plan (macro risk assessment)	( )	( )	( )	( )	( )
Embracing risks in individual audit (micro risk assessment)	( )	( )	( )	( )	( )
Complying with the regulatory requirement	( )	( )	( )	( )	( )
External risk reporting. Value creation	( )	( )	( )	( )	( )
If risk assessment implementation was successful, please assess the following factors					
Clear definition and communication of objectives	( )	( )	( )	( )	( )
Culture and attitudes towards controls and risks	( )	( )	( )	( )	( )

Clear identification of processes and their owners	( )	( )	( )	( )	( )
Management support at top level	( )	( )	( )	( )	( )
Development of a formal risk assessment model	( )	( )	( )	( )	( )
The audit plan is prepared according to:					
Requests of senior management	( )	( )	( )	( )	( )
Risk-based approach	( )	( )	( )	( )	( )
Cycle-based approach	( )	( )	( )	( )	( )
In case of risk-based audit planning, the risk factors taken into account in your organization					
Professional competence of the human resources	( )	( )	( )	( )	( )
Changes in the organizational structure	( )	( )	( )	( )	( )

Impact of activities on the corporate image	( )	( )	( )	( )	( )
Complexity of operations	( )	( )	( )	( )	( )
Adequacy of internal controls	( )	( )	( )	( )	( )
Degree of automation	( )	( )	( )	( )	( )

Additional comments:

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