

**EFFECTIVENESS OF RISK MANAGEMENT PROCESS IN
INVESTMENT DECISION MAKING:
A CASE OF PARASTATAL PENSION FUND HEAD QUARTERS**

**EFFECTIVENESS OF RISK MANAGEMENT PROCESS IN
INVESTMENT DECISION MAKING:
A CASE OF PARASTATAL PENSION FUND HEAD QUARTERS**

By

Jonnes Rweyunga Rutainulwa

**A Dissertation Submitted in Partial Fulfillment of the Requirements for the
Degree of Masters of Science Accounting and Finance of Mzumbe University**

2014

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University a dissertation titled: “*Effectiveness of Risk Management Process in Investment Decision Making; A Case of Parastatal Pension Fund (PPF) Head Quarters*”, in partial Fulfillment of the Requirements for the Degree of Masters of Science in Accounting and Finance of Mzumbe University.

Major Supervisor

Internal Examiner

External Examiner

Acceptance for the Board of School of Business

DEAN / DIRECTOR, FACULTY / DIRECTORATE / SCHOOL / BOARD

**DECLARATION
AND
COPYRIGHT**

I, Jonnes Rweyunga Rutainulwa, declare that I'm the sole author of this dissertation, I have not been registered for other academic award or qualification, nor has any of the material been submitted wholly or partly for any other award. This dissertation is as a result of my own research work, and where other people's research was used, they have dully been acknowledged.

Signature: _____

Date _____

©

This dissertation is a copyright material protected under the Berne Convention, the Copyright Act 1999 and other international and national enactments, in that behalf, on intellectual property. It may not be reproduced by any means in full or in part, except for short extracts in fair dealings, for research or private study, critical scholarly review or discourse with an acknowledgement, without the written permission of Mzumbe University, on behalf of the author.

ACKNOWLEDGMENTS

First and foremost thanks to the Almighty **GOD** for granting me physical and mental health since the beginning of my master's study up to the time I submit this work to the University authority.

Second, I would like to acknowledge the expert and professional guidance I got from **Mr. Juma Buhimila** my supervisor. I value his support, patience, encouragement and constructive criticism throughout the preparation of this dissertation.

Third, special thanks should go to my parents **Mr. Nicodemus Rutainulwa** and **Mrs. Theodora Rutainulwa** for their extended moral and material support.

Fourth, I extend my appreciation to my young brother **Mr. Jovin Rutainulwa** who spent great deal of his time supporting me morally and materially till submission of my dissertation work, I would also like to thank my in law *Sylvia Migeyo* for the significant, important, great and excellent contribution she played that enabled the initial stages of this dissertation. I would also like to thank my best friends **Essau Nyanabo and Simon Mush**, my roommate and best friend **Mr. Pascal Mugina** for their sincere cooperation at the University.

Last but not least, I would like to express my sincere thanks to all individuals in one way or another, who through their various contributions, made possible the completion of this study.

DEDICATION

To my beloved father **Mr. N.K. Rutainulwa** and mother **Mrs. D. Rutainulwa**

ACRONYMS

ALM	Asset Liability Management
BIS	Banking Institution Supervision
CRO	Chief Risk Officer
CSF	Critical Success Factors
DB	Defined Benefits
	Development
ERM	Enterprise Risk Management/ Entity-wide Risk Management
IAIS	International Association of Insurance Supervision
ICP	Insurance Core Principle
IMF	International Monetary Fund
IOPS	International Organization of Pension Supervisors
MSC (A&F)	Master of Science (Accounting and Finance)
OECD	Organization for Economic Cooperation and
PPF	Parastatal Pension Fund
SPSS	Statistical Package for Social Sciences
VaR	Value at Risk

ABSTRACT

The main objective of the study was to identify the effectiveness of risk management process in investment decision making.

The study looked on four major processes of risk management that is identification of factors that favour the occurrence of risk in the pension business settings, identification of key methods used to manage the risk faced by pension funds and to determine the effectiveness of risk control methods on investment decision making.

The research activity used the case study design because the research was conducted for the purpose of acquiring data in detail about the topic on question. The research study used both secondary and primary data. Methods of data collection included questionnaires, interviews and observation. The data analysis method employed for the research is descriptive in nature.

The findings discussed and explained on the factors that four occurrence in pension funds business setting, key methods used to address the risks favour risk occurrence in pension funds and the effectiveness of risk controls on the investment decision making.

The study recommends that further research for comparative purposes for enhancing collective efforts, determination of controls and their applicability and the policies guiding the investment in pension Funds to improve performance of pension funds in Tanzania.

The sample of this study was found to be forty six (46) respondents from different directorates and units as follows. Procurement unit seven (7), Directorate of Internal audit eight (8), directorate of risk management six (6), Directorate of planning and investments ten(10) and directorate of operations five (5).

TABLE OF CONTENTS

CERTIFICATION	i
DECLARATION	ii
ACKNOWLEDGMENTS	iii
DEDICATION	iv
ACRONYMS	v
ABSTRACT	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES	xii
CHAPTER ONE	1
1.0 Introduction	1
1.1 Background to the problem	2
1.2 Statement of the Problem	3
1.3 Objectives of the study	5
1.3.1 General Objective	5
1.3.2 Research Specific Objective	6
1.4 Research Questions	6
1.5 Significance of the study	6
1.6 Limitations of the study	7
1.7 Delimitation of the study	7
CHAPTER TWO	8
LITERATURE REVIEW	8
2.0 Theoretical literature review	8
2.1 Introduction	8
2.2 The Importance of managing Risk	9
2.2.1 How do organizations manage risks	9
2.2.2 Risk management methods	10

2.2.2.1	Establishing the context and framework	10
2.2.2.2	Identification of risk	12
2.2.2.3	Risk assessment analysis and evaluation	14
2.2.3	Existing controls and control assurances	14
2.2.4	Risk analysis	16
2.2.5	Risk Evaluation	17
2.2.6	Risks treatment.....	19
2.2.7	Identify, Evaluate and Select Treatment Options	19
2.2.8	Using risk information	21
2.2.9	Categorization of risk	21
2.2.10	Monitoring and review	22
2.2.11	Empirical Literature Review	25
2.2.12	Financial Sector Risk-Management Requirements	26
2.2.13	Pension Sector	26
2.2.14	Detailed Risk Management Guidance.....	28
2.2.15	Determinants of Risk Management Effectiveness	28
2.2.16	How to determine the effectiveness of risk management	29
2.2.17	How to Measure Enterprise Risk Management Effectiveness	30
2.2.18	Critical Success factors for effective risk management	31
2.2.19	Conceptual Frame Work	33
2.2.19.1	Dependent Variable.....	33
2.2.19.2	Independent Variable	33
	CHAPTER THREE	35
	RESEARCH METHODOLOGY	35
3.0	Introduction	35
3.1	Research Design.....	35
3.2	Area of the Study	36
3.3	Target Population	36
3.4	Sample Size and Sampling Techniques	36

3.5 Sampling Techniques and Procedures	38
3.6 Data collection methods	38
3.7 Secondary Data	38
3.8 Primary Data	38
3.9 Questionnaire	38
3.10 Interviews	39
3.11 Observation	39
3.12 Data Analysis Methods	40
3.13 Data Validity and Reliability	40
CHAPTER FOUR.....	41
DATA ANALYSIS AND INTERPRETATION OF THE RESULTS.....	41
4.0 Introduction	41
4.3 Background Information of Respondents	41
4.4 Demographic information	42
4.4.1 Gender of respondents	42
4.4.2 Education of Respondents.....	42
4.5 Description of findings in relation to specific objectives.....	43
4.6 Factors which engender risks occurrence in pension funds business Settings	43
4.7 Key methods used to address the risks faced by pension funds.....	46
4.8 The effectiveness of risks controls methods on the investment decision making.....	50
4.9 The controls used by the organization to reduce the consequences of risks	52
CHAPTER FIVE.....	56
DISCUSSION OF FINDINGS	56
5.0 Introduction	56
5.1 Key methods used to address the risks faced by pension funds.....	56
5.2 The effectiveness of risks controls methods on the investment decision.....	56
5.2.1 Financial performance.....	57
5.2.2 Investment policy	58

5.3 The controls used to reduce the consequences of risks and evaluation of the effectiveness of such controls measures	58
5.4 Identification of Risk.....	59
5.5 Risk Performance Measures,.....	59
CHAPTER SIX	60
CONCLUSION AND RECOMMENDATION	60
6.0 Introduction	60
6.1 Conclusions	60
6.2 Recommendation for Further Research	61
REFERENCES.....	63
APPENDICES	66

LIST OF TABLES

Table 2.1 Risk Events Table	12
Table 2.2: External Sources of Risk.....	13
Table 2.3 Internal Sources of Risk.....	14
Table 2.4 Risk Evaluation Criteria.....	17
Table 3.1: The allocation of the expected sample size.....	37
Table 4.1 Sample size and Respondents who participated in the study.....	41
Table 4.2 Gender of respondents	42
Table 4.3 Education of Respondents.....	43
Table 4.4 Management Key Risk Indicators for addressing risks	47
Table 4.5. Scoring system of significance and likelihood used for full risk management.	48
Table 4.6 Impact and Likelihood definition.....	49
Table 4.7 A simple Risk Register for the business unit (PPF).....	51
Table 5.1 Financial Performance 2008 to 2012	58

LIST OF FIGURES

Figure 2.1 the Risk Management Methods	10
Figure 2.2: Relationship between dependent variable and independent variable.	34

CHAPTER ONE

1.0 Introduction

Risk management has become an important topic for financial institutions both commercial banks and non- bank (Insurance firms, stock exchange, stock securities, asset management, pension schemes etc) especially since the business sector of financial services is related to conditions of uncertainties. Pension Funds operates through a simple mechanism contributions are paid into the Fund, invested in capital markets and finally paid to pensioners in form of terminal benefits. The funds invested in capital markets are invested strategically to make sure that they generate required returns and no loss is incurred. To avoid these potential losses which may be culminated from economic environments and risks associated in the capital markets (market risks financial risks, interests rate risks and exchange rate risks) Pension funds have to implement / institute strong risk management function to manage all forms of risks so that the funds invested in the capital markets generate sufficient returns to make sure that the Fund pays its liabilities (pension payments) and also make all necessary operations for benefit of all stakeholders of the pension Fund. In this case the turmoil of the financial industry emphasizes the importance effective risk management procedures. (Na Ranong and Phuenggam quoted by Carey, A. 1998)

Risk can be a result of the financial institutions being always affected by unsystematic changes such as changes in economic situations (uncertain interest rates, foreign exchange rates), political changes, social changes and systematic risk such as internal controls, corporate governance and information technology systems as well.

As mentioned above, risk management has become a main topic for the financial institutes especially since the services found in financial institutions are related to conditions of uncertainties. Financial institutions are exposed to a larger number of risks through their activities. In order to promote confidence amongst financial

institutions' stakeholders, it is necessary to invest and implement and promote a strong risk management within these organizations. (Chowahry and Goyal, 2000).

1.1 Background to the problem

Occupational pension funds operate along a simple mechanism, contribution are being paid into the fund which are subsequently invested on the capital markets, and finally paid out in the form of terminal benefits. But the operational variables implied in this methods are uncertain; this mechanism is inescapably embedded in risk. Investments returns are uncertain and this holds true for morality or salary trends as well. Pension funds are inevitably active risk takers. Therefore there are risks pension funds takes that needs to be managed. But managing risk is not equivalent to avoiding risk. In this phenomenon, the risk taking capacity is a central element of Defined Benefits (DB) pension Funds.

Franzen, D.(2010). "Managing Investment Risk in Defined Benefits(DB) Pension Funds" OECD working papers on Insurance and Private Pensions, No. 38, OECD Publishing, from World Wide Web:

<http://www.riskmanagement.oecd.org/10.171818/pdf>

The 2000 – 2003 Crisis had shifted attention to pension funds risk management. The sudden turn around especially of Anglo – American pension's funds from surplus to deficit served as a catalyst for "better risk management" of pension funds. The IMF concluded in 2004 in analysis of "Risk management and the pension fund Industry" that policymakers should introduce measures to encourage better risk management practices and to reduce the risk of another cycle of over and underfunding.

Stewart from the Organization for Economic Corporation and Development (OECD) conducted a first assessment of pension fund risk management in 2005 concluding that, after several golden decades of equity investments delivering adequate returns,

the topic of risk management has returned to the forefront of the pension industry given the new challenging funding and investment environment (Stewart 2005).

Due to all the operational environment and uncertainties explained above, risk management has stayed at the above cited forefront of the pension industry. Modern risk management tools analogous to those which were used in other sectors of the financial industry such as securities firms and banks are increasingly applied by pension funds. For example nowadays, pension funds in many jurisdictions calculate Value – at – Risk (VAR), apply risk budgeting concepts, and apply Assets – Liability - Management (ALM) as strategic risk management tool. ALM consists of a risk management approach, which takes into account the assets, liability and also the interaction between different policies which the board of pension funds can apply.

As Carey (2001) pointed out that the operational problem in financial institutions can be life-threatening to other business. Establishing the appropriate cultural framework needs the support from all employees in all methods such as identifying monitoring and controlling risks.

It is important when it is essential to deliver the liability cash flows (i.e. pension payments) with high degree of probability. ALM decision problems is the risk budget of all stakeholders and all the available policy instruments are taken into account in order to accomplish adequate pensions at acceptable cost and risk (Boender et al 2007).

1.2 Statement of the Problem

Globally speaking, Pension funds were faced with the second financial crisis within less than ten years. The 2007/2008 financial crisis seems to have repeated and amplified the shockwaves that the previous crisis between 2000 and 2003 sent to pension funds throughout the world. Defined Benefits pension funds, which had

mostly successfully restored their funding level after the perfect pension storm with simultaneously falling equity and rising bond prices, have plunged again into huge funding deficits.

The general objective of the pension funds is to provide reasonable assurance on safeguarding of members funds and the fund's assets, effectiveness and efficiency of operations, compliance with applicable laws and regulations, reliability of accounting records and financial information, sustainability of the fund's operations under normal and adverse conditions as well as responsive behavior towards stakeholders. Fund's system is designed to provide the trustees with reasonable assurance that procedures in place are operating effectively. (LAPF Pension Fund report of the trustee's year ended 30, June 2013).

However, some refinements to traditional ERM techniques are usually relevant when pension arrangements are present. Pension funds are not normally thought of as enterprises' as such, at least not the sorts of enterprises most naturally associated with business corporations. Instead they are generally set up as vehicles with a specific purpose in mind, namely to provide retirement benefits of specific individuals. This is the prime objective of pension Funds.

Since the prime objective of pension Funds as stated above is to provide pension benefits to their sponsors and the Funds are operating in the same economic environment as other organizations, they may be affected in many areas such as strategy, finance and others. In terms of specifics it may include are for example loss of key staff, substantial reduction in financial and other resources, severe disruption to the flow of information and communication, fires or other physical disasters leading to failure of pension Funds to attain their objectives.

Risk is inherent in every economic activity and every organization to manage it according to its size and nature of operation because without risk management, no organization can survive in the long- run. This is because business today are faced with far greater challenges than before due to the fact that the economic, business and operating environments are constantly changing. Due to all these environments, It is logical to assume pension Funds has to put in place a strong risk management structure to help achieve their goals.

Currently it has been noted that the service delivery is an area which has generated substantial dissatisfaction among members and other beneficiaries of public pension scheme. Lack of up to date information about the schemes and the amount of individual contributions made and estimated benefits. Such situation of dissatisfactions of the members ultimately forces the trustees to accept final responsibility for risk management and internal controls systems of the fund. The fund has a risk management framework and various policies through which it manages its risks (LAPF Pension Fund report of the trustees year ended 30, June 2013).

Therefore the sole purpose of the research is to identify the risks management methods used to manage the risks faced by the fund and hence assess their effectiveness as to how efficient they are in assisting management in making productive investment decisions to the pension fund.

1.3 Objectives of the study

1.3.1 General Objective

The general objective of the study is to identify the effectiveness of the risk management methods in investment decision making.

1.3.2 Research Specific Objective

- i. To identify factors which favour risks occurrence in pension funds business settings
- ii. Identify the key methods used to manage the risks faced by pension funds.
- iii. To determine the effectiveness of risks controls methods on the investment decision making.

1.4 Research Questions

- i. List the factors favoring the occurrence of risks in the pension funds business settings?
- ii. What are the main methods used to manage the risks faced by the pension funds?
- iii. What is the effectiveness of the key methods applied for risks management on investment decision making?
- iv. Cite the criteria used to select the risk appropriate option for reducing the effects of the risks on investment decision making?

1.5 Significance of the study

The findings of the study will contribute new ideas on the issue of risk management in organizations investment decision making.

The finding of the study dials with the factors favoring risk occurrence in pension Funds, key methods used to manage risks faced by the pension funds and to determine the effectiveness of the risk control methods on investment decision making.

All these new findings may contribute to the risk management function in the pension Fund industry and hence improve the performance of the pension Fund Industry in Tanzania.

It will also help decision makers to make proper conclusions basing on the updates provided by the study

The study will further act as a reference for the future researchers on this area.

This study is also the requirements of the University for completion of my Masters study.

1.6 Limitations of the study

The study faced the following limitation

- Confidentiality of information, it happened that when the researcher asked some questions, the management of PPF responded that some of the information were meant for official use only not for public or external use
- Data collection was sometimes very difficult as it was not done timely because the researcher wish wishil because the PPF officials were busy conducting their official duties Availability of informants. The researcher faced a challenge of availability of officers. Sometimes they were not available due to other official responsibilities.

1.7 Delimitation of the study

The findings of the study can't be generalized since it only covers Dar es Salaam, region with small sample size which in no way can be applied to represent the entire country.

CHAPTER TWO

LITERATURE REVIEW

2.0 Theoretical literature review

2.1 Introduction

The increasing pace of change, customer demands and market globalization all put risk management high on the agenda for forward thinking organizations. It is necessary to have a comprehensive risk management strategy to survive in today's market place. In addition, the Cadbury committee's report on corporate Governance (1992) Quoted by Merna T. and F. At-Tham states that having a methods in place to identify major business risks as one of the major procedures of an effective control system is paramount.

“Risk management methods: Draft Guidance for infrastructure operators. Tasmanian counter terror review from World Wide Web: <http://ww.riskcover.wa.gov>. Retrieved on 08.04.2014

Pension funds collect funds from members and then invest it for the purpose of generating cash to finance future benefit payments. Therefore the objectives of the investments made by the fund are:

- Maintain time value of money;
- Enhance the capacity of the Fund to pay meaningful benefit to its members;
- Generate income to meet administrative expenditure;
- Support social and economic utility; and
- Support social and economic well-being of pension members.

The management of risk is one of the most important issues facing organizations today. High profile cases such as Barings and Rail trucks in the U.K Enron, Adelphia and World Com in the U.S.A Demonstrate the consequences of not managing risk

properly. Forexample, Organizations which do not fully understand the risks of implementing their strategies are likely to decline. (Al.Bahar and Grandell: 1990).

2.2 The Importance of managing Risk

The primary reason for managing risk is to enable organization to successfully achieve their goals. With the growing need for transparent decision making, a structured, systematic risk management method demonstrates the due diligence that is required and provides an audit trail for decision making. A comprehensive understanding of the risk exposures facing an organization also facilitates effective planning and resource allocation, and encourages a proactive management culture, with flow-on benefits for every aspect of an organizations operation (Insurance Commission of Western Australia (2011): Risk Management Guidelines 2ndEd. from World Wide Web: <http://ww.statesecurity.tas.gov/au/riskmanagement.pdf>. Retrieved 06/04/2014

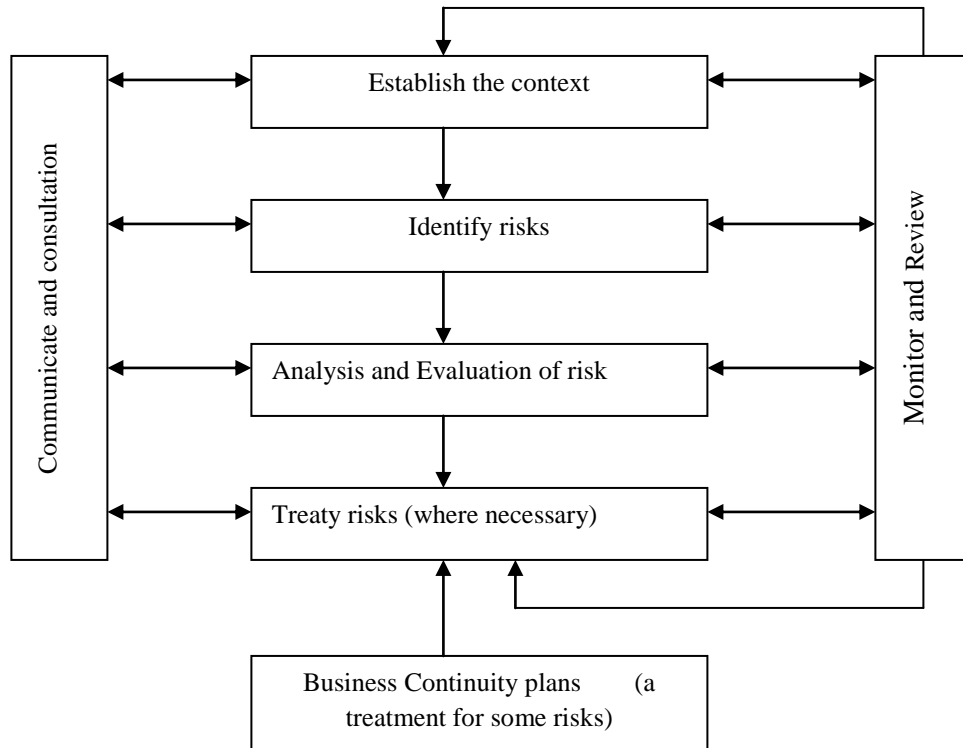
2.2.1 How do organizations manage risks

Risk management is most successful when it becomes fully integrated into normal operating procedures, methods and systems. Like all good management practices, it should be driven from the top down and be recognized as the responsibility of everyone. Executives and senior managers have a particular responsibility in demonstrating commitments to the implementation and use of the risk management methods and the information of the risk management methods and the information it generates. Fundamentals of risk management (EWF) European Federation for Welding Joining and Cutting) working papers on risk management 2003.

The risk management methods comprises of the following steps.

- Establish the context
- Identification of risks
- Analysis and Evaluation of risks
- Treatment of the risks where necessary

Figure 2.1 the Risk Management Methods



Implementing risk management involves a legal and structured way of thinking and it requires the development and use of consistent language to support the methods. It is important to use precise, common terminology to ensure the affective communication and unambiguous description of the risks within your organization.

2.2.2 Risk management methods

2.2.2.1 Establishing the context and framework

There are two dements to this step

- Setting the risk management framework
- Establishing the specific risk assessment context

Risk management framework

An organization's risk management program should be aligned to its strategic goals and objectives and is most effective when it is integrated with the overall planning and management functions of the organization. In developing a framework for managing risk, an organization needs to consider the following.

- i. Core purpose, vision, mission and values – why does it exist strategic direction, goals, required outcomes and deliverables. These may be defined by legislation, ministerial directives, charters etc.
- ii. Internal and external environments often assessed using a SWOT analysis
- iii. Internal and external stakeholders – who are they what are their needs and expectations?
- iv. Organizational planning, reporting and management methods
- v. Roles, responsibilities and communication strategies

(Risk management procedures, transport Road & Maritime services from [www.http//www..rms.gov.au/doingbusinessinthus/pdf](http://www.rms.gov.au/doingbusinessinthus/pdf). Retrieved on 09.04.2014

Based on the outcome of this analysis, an organization will be in the position to define how risks are to be managed across the organization, through the development of

- i. Risk management policy
- ii. Risk management procedures, which clearly define how the risk management methods is undertaken and integrated into the planning. Delivery, monitoring and reporting activities of an organization
- iii. Risk Reference tables – are the organizations language which define consequences and like hood. They also include a definition of the acceptance and reporting criteria for specific levels of risk
- iv. Risk management implementation strategy - a plan of how the policy and procedures are to be communicated and implemented.

- v. Risk Register tool- an electronic tool to facilitate, the recording, managing reporting and use of risk information.

2.2.2.2 Identification of risk

To ensure that all key risks within an organization are being addressed a structured systematic approach to identify risks is essential. The identification methods considers; each strategy, activity or function as defined by the context in step 1, looks at what is critical to the success of that strategy, activity or function and then considers what may go wrong. This is defined as the risk. For example, looking at part of an operation that provides advice to clients one could identify a risk as follows.

Table 2.1 Risk Events Table

Key activity	Critical success factor	Risk
Providing advice to clients	Accuracy of information	Incomplete or inaccurate information provided to clients

Source: Researcher’s field data, 2014

For each risk, one should identify possible causes of the risk event. Each event may have one or more causal factor which can either directly or indirectly contribute to the risk event occurring. Identifying the range of causes will assist in understanding the risk identify controls, evaluate the adequacy of existing controls and designed effective risk treatments.

(Risk Management Procedures, Transport Road & Maritime services.

From <http://www.rms.gov.au/doingbusinessmthus/pdf>. Retrieved on 06.04.2014

Causes of risk

The causes of risk are identified to gain a better understanding of the risk and assist in identifying controls. There are often a number of contributing factors which lead to a risk occurring. There may be both internal and external sources of risk. Identified

causes assist in the methods of identifying controls later on in the risk management methods.

The management of risk is done by establishing risk controls for each risk event / cause and to make sure that these controls are available at the time of risks event and effective in absorbing those risk events and so that all risks are monitored efficiently. A simple example of a risk event control is as follows.

When the directorate of finance prepares the periodic Bank Reconciliation statements, it may find that there are some payments which were wrongly debited by the Bank (Risk event) which if not seen the Fund would suffer such a loss (risk). In this scenario a Bank Reconciliation statement is a control mechanism that contained the loss of funds by the PPF.

A well-managed risk will have effective controls for each identified cause. The absence of controls for identified causes highlights gaps in management of the risk and thus areas for improvement. (Bob A. Hedges and RI Mehr: 1993).

Examples of sources of risk

Table 2.2: External Sources of Risk

External Sources of risk	risk issues
Economic	Market growth , economic cycles, capital movements, regional stability and exchange rates
Political and regulatory	Legislation, regulation, government policy, political involvement, investments, acceptable practices and societal security
Technology	Communications, Transportation, hardware and software ad
Competition	Resources, skills, funding, market positioning and new entrants
Community	Reputation, ethics, partners, practices stakeholders expectations relationship and support.

Source: Researcher's field data, 2014

Table 2.3 Internal Sources of Risk

Internal sources of risk	Risk issues
People	Knowledge retention, skills, integrity, loyalty, competence, ethics and industrial relations
Data/information	Integrity, currency, reference, access, storage, quality, security and timeliness
Strategy	Robustness, flexibility, strategic fit, planning capability, implementation and ownership
Leadership	Vision, management, capability, innovation, culture, ethics, effectiveness and communication
Stakeholder management	Shareholder needs, segmentation, fulfillment, relationships, service proposition and knowledge and understanding

Source: Researcher's field data, 2014

2.2.2.3 Risk assessment analysis and evaluation

In general, organizations have a broad range of public sector procedures and systems in place that act as risk controls. As a result, the assessment methods used by most organizations takes into account the effectiveness of these existing controls. Therefore in this context, risk assessment involves.

- Identifying and evaluating any existing controls
- Analyzing the risk in terms of consequences and like hood
- Evaluating the level of risk against a predefined acceptance criteria (Banks: 2004)

2.2.3 Existing controls and control assurances

Controls are the measures that are currently in place i.e. at the time of the risk assessment, that reduce the consequences and or likelihood of the risk.

(a) Overall control rating

According to (James, S. et al: 1999) all controls are looked at as a whole in terms of their adequacy in managing the risk. The adequacy of the controls is assessed on a common sense, qualitative basis. This can be viewed as a reasonable test: are you doing what is reasonable under the circumstances to manage i.e. prevent or minimize the risk? The recommended rating scale is as follows.

Excellent – Doing more than a reasonable person would be expected to do in the circumstances.

Adequate- Doing only what a reasonable person would be expected to do in the circumstances.

Inadequate- Doing less than what a reasonable person would be expected to do in the circumstance.

If it is reasonable foreseeable that a risk may impact on the agency, the agencies should ensure controls are in place to manage the risk. These controls should be in line with what a reasonable person would do to avoid the unwanted effects of the risk. To assist in determining what is reasonable, the following should be considered:

- The likelihood of the unwanted consequence(s) occurring if no action was taken
- The likely severity of the consequence
- The availability, suitability and cost (financial and other) associated with implementing the control.
- The overall need to engage in a risk creating activity.
- The extent of knowledge about the risk, its elimination or mitigation.

(Harrington & Niheaus: 2003)

(b) Individual control assessment

While controls have been assessed as a group, each control needs to be looked at to ensure those controls are effective and being used. This is what is commonly referred to as controls assurance methods. It is a means to confirm the existence and effectiveness of individual control and in doing so, consideration should be given to factors such as:-

- Is the control relevant?
- Is the control documented?
- Is the control in use?

- Is the control up-to-date?
- Is the control effective?

If existing controls is identified as being ineffective, then the necessary improvements should be incorporated into a treatment action plan.

North Holland (2002), corporate risk management costs and benefits

2.2.4 Risk analysis

This is the methods of considering the consequences and likelihood of a particular risk scenario to determine the “Level of risk: using the risk reference tables developed as part of setting the overall organizational framework. (Donm and Robert: 2002)

Consequences rating

A risk that eventuates may impact on an organization across a number of different areas to a greater or lesser extent. When analyzing the consequences of a risk event, an organization needs to consider the level of pact (eg.1-5) in relation to each of the consequence categories defined in the consequence Rating table. For example, a risk may have an impact of 5 for financial loss and 4 for reputation and image and little or no impact in other areas. Both ratings may be recorded, as this demonstrates that your consideration of the risk has been thorough. When selecting the consequences rating, this must be done taking into account the existing controls for the particular risk. (Angelopoulos and Maudoukouta: 2000).

Calculating the level of risk

The level of risk or risks rating is calculated by multiplying the consequence and likelihood ratings. For any risk there may be a number of different consequences /likelihood scenarios. Within each category there may be multiple scenarios ranging from “minor but likely” to “catastrophic but rare. It is important to rate what is the realistic worst case scenario, which is the worst – case level of risk considering both

consequences and likelihood. In these instances it may be appropriate to rate the same consequence category more than one. Where there are multiple ratings for a risk, the highest combination of consequence/likelihood is taken as the level of risk.

2.2.5 Risk Evaluation

Once the level of risk has been determined, the next step is to evaluate the risk and see where the risk fits against the organization’s overall risk criteria. An example of Risk acceptance criteria table is shown below. The table gives guidance as to the acceptability of the risk and who is responsible for the acceptance decision for that risk. (Angelopoulos and Maudoukouta: 2000).

Table 2.4 Risk Evaluation Criteria

LEVEL OF RISK	CRITERIA FOR MANAGEMENT OF RISK		REPORTING TO	WHO IS RESPONSIBLE
1-3	Acceptable	With adequate controls	Annual reporting to audit & RM committee	Risk Owner
4-5 (excluding risk with consequence of 2 or 3)	Low	With adequate controls	Annual reporting to audit & RM committee	Risk Owner
6-9 (excluding risk with consequence of 4 or 5)	Moderate	With adequate controls	Quarterly reporting to audit and RM committee/director	Director if not already the risk owner
10-14 (including any risk with consequence of 4 or 5 and LOR <15)	Significant	Only acceptable with excellent controls	Quarterly reporting to audit and RM committee/executive	Executive director
15-25	Critical	Only acceptable with excellent controls	Immediate reporting to executive and director general	Director general

Source: Researcher’s field data, 2014

Risk ownership and risk decision

Each risk that is identified needs to be allocated a risk owner. This is the person responsible for managing the risk and is usually the person who is directly responsible for the strategy, activity or function that relates to the risk. Some of the key responsibilities of the risk owner include.

- Sign off on acceptance of the risk
- Responsible for the regular review of the risk
- Responsible for the regular reporting on the risk
- Monitoring of controls
- Monitoring/ implementation of any risk treatments

Assigning a risk ownership ensures a specific person is responsible and accountable for particular risk. It is usually impractical and ineffective for risk ownership to be assigned to a body such as a business unit or committee. (Emmet 1993).

Where risk meets the criteria for acceptance as defined by the organization's risk acceptance criteria table, then the risk owner is capable of accepting the risk. Where a risk doesn't meet the criteria for acceptance, the risk must be managed by the position identified as having responsibility for that particular level of risk, as indicated by the risk acceptance criteria table. Similarly a risk should also be transferred to the appointed authority for acceptance when risks are identified as critical.

(University of Canterbury, (2010) strategic risk management: from World Wide Web: <http://www.benthamscience.com/open/toime.pdf>. Retrieved on 09.04.2014

Once a risk has been analyzed and evaluated the risk Owner makes an informed decision to do one of the following.

- Accept the risk – the opportunity outweighs the risk and the existing controls meet the criteria specified in the risk acceptance criteria table.
- Avoid the risk – do not carry on with the activity that is associated with the risk
- Treat the risk- reduce the consequence, likelihood or both and or improve the controls rating by strengthening existing controls or developing new controls, so that the risk can be accepted.

The risk decision balances the issue of risk and opportunity. Should an opportunity be passed over because of the risk associated with it. Should more be done to manage the risk so as not to meet out on the opportunity? These are the questions an organization needs to address.

An organization cannot progress or improve without capitalizing on opportunities, and opportunities will always have associated risks. The risk management methods always have associated risks. The risk management methods allows you to optimize this decision and demonstrate you are effectively managing the risks. (Merna and Al-Than: 2008).

2.2.6 Risks treatment

In some cases, existing control will be deemed to be adequate and effective and the risk will be accepted as it stands. In other instances the risk will need to more effectively managed before it can be accepted. This latter case requires the identifying a range of options to reduce the consequences and / or likelihood of a risk, or improve the controls rating, evaluating these options, preparing treatment plans and implementing them.

(Management of risk – principles and concepts (2004), HM Treasury)

2.2.7 Identify, Evaluate and Select Treatment Options

Each unacceptable risk will have a number of treatments. Other than the option of avoiding the risk entirely, treatment options will do one or all of the following.

- Reduce the consequences of the risk if it eventuates
- Reduce the likelihood of risk eventuating
- Improve the controls rating to “ Adequate” or Excellent”

Managing risk is about doing all things reasonable, not all things possible. To evaluate the treatment options a number of selection criteria can be applied.

- i. How will the treatment impact the level of risk and or controls ratings?
For each treatment option, a predicted level of risk and controls rating should be calculated, considering the impact of adding this option as a new control. Treatment options, which reduce the level of risk to an acceptable level and /or improve the controls rating, should be considered.
- ii Cost of implementation versus benefits derived
Selecting appropriate options involves balancing the cost against the benefits derived. An option may appear to be the best option from a risk reduction perspective, but the cost of implementation may be prohibitive

Compatible with organizations objectives

The options selected need to be compatible with the overall objectives of an organization. Treatments that are incompatible with existing objectives, culture or policies are obviously unacceptable, no matter how effective they might prove. (Osborne: 2013)

Prepare and implement treatment plans

The purpose of the treatment action plans is to document how the chosen options will be implemented. These plans should include the following.

- Proposed actions - what is the selected treatment
- Resource requirements – what is required to implement the treatment
- Responsibility – who has the responsibility to implement the treatment i.e. treatment owner.
- Timing – what are the timeframes for treatment implementation
- Performance measures – what are the key indicators that will demonstrate the progress of implementation and ultimately the effectiveness of the treatment option.

- Reporting and monitoring requirements- who need to be informed during and at completion of the implementation of the treatment? How will the implementation be monitored

2.2.8 Using risk information

The risk management doesn't end once risks have been identified, assessed and documented. The risk information generated should be used to inform organizations strategic and / or operational plans, to guide budgets or financial statements. Risk information thus becomes part of everyday thinking. How risk information is extracted and used, how it is facilitated, how risk information is categorized, suited and reported. (Risk management methods: draft guidance for infrastructure operator Tasmanian Counter Terror Review (2003). From World Wide Web: <http://www.riskcover.wa.gov>. Retrieved on 12.04.2014.

2.2.9 Categorization of risk

(a) Source of risk

A usefully approach to help identify any common causes of risks across different areas of an organization is to categorize the risks by “source of risk”. This facilitates the reporting and management of those systemic issues allowing common causes to be managed with organization – wide controls or treatments, rather than at an area of departmental level. (Merna and Al-Than: 2008).

(b) Impact range

Another way to categorize risk is by impact range. The impact range is a classification of hierarchy which indicates how wide the consequences of the risk will reach within an organization and beyond. For example could the risk impact a specific division department or directorates?

The early identification of the critical information will inform project planning and management, including the formulation of any contracts required for delivery of specific services or elements of the project. The terms and conditions specified in the contract should be reflective of the risk sharing decisions.

2.2.10 Monitoring and review

As with communication and consultation, monitoring and review is an ongoing part of risk management that is integral to every step of the methods. It is also the part of risk management that is most often given inadequate focus, and as a result the risk management programs of many agencies become irrelevant and ineffective overtime.

Monitoring and review ensures that the important information generated by the risk management methods is captured, used and maintained. (Trieschman, et al: 1999).

- Monitoring and review are related methods but the distinctions between them are important in the context of risk management.
- Monitoring is an ongoing methods of routine surveillance of both internal and external environments
- Review is a more periodic method that looks at the current status or situation and usually has a specific focus.

Monitoring and review should be designed to detect both gradual and sudden change. Continuous monitoring is most likely to detect a dramatic change in a timely fashion, whereas periodic review of a particular aspect of the risk methods is more oriented towards detecting trends and incremental change. (Crouhy, et al: 2006)

Focus Area

Monitor and review procedures are focused on two principle areas of risk management. The first area relates to issues specific to a particular risk assessment, which would over the following.

- Context – the risk assessment context, which was established from a number of facts and deductions. For instance the operational environment, organizations structure, stakeholder expectations, statutory requirements, economic conditions and political environment are all based on perceptions at the time the monitoring and review methods should if any of these underlying assumptions have changed, or if new factors have emerged that impact upon the context of the particular risk assessment.
- Risk and controls – numerous factors can cause the likelihood and consequences of risks, or the actual nature of the risks themselves, to change. The controls for risks can also become less effective or irrelevant. Monitoring by the risk owner and other will ensure the timely detection of these changes so that appropriate action can be taken.
- Treatments – risk treatments need to be monitored and reviewed to ensure they are on course to be fully and correctly implemented. In some cases, treatments need to be adapted or strengthened because the risk they are designed to advise have changed; in other instances resources can be saved by discontinuing irrelevant treatments.

The second area for monitor and review is the application of risk management methods across the entire organization, with specific attention to the following.

- Consistent application of the risk management methods across the organization.
- Incorporation of risk management methods into strategic, operational and project planning.
- Adoption of risk management practices and procedures by staff at all levels.

(Ritchie & Marshal: 1993)

Risk management performance measures

To be able to effectively monitor and review the management of risk within an organization, appropriate performance indicators need to be developed. These may be strategically or operationally focused. Higher level organizational performance measures should be used to judge the performance of risk management within an organization.

To ensure there is congruency between the risk management methods and organizational performance measures, risk management should be linked into strategic plans, budgeting cycles and other all-encompassing documentation within an organization. At an operational level both outcome and methods measures should be used as benchmarks. Outcomes based on performance indicators (PIs) include claim reports and are accurate and sensitive.

Methods based on PI measures activities and methods as they occur and thus provide more timely, if less precise information about changes. An example of an outcome based PI is a performance report. (Ross and Westerfield 2005).

Roles and responsibilities

Monitoring and review of any organization's risks is an integral part of all core business functions and it should be seen and treated as such.

The monitoring and review of the risk specific contexts, risks, controls and treatments is primarily the responsibility of risk control and treatment owners and should be integrated into the existing reporting lines and forums of the organization. (Paul: 1964).

2.2.11 Empirical Literature Review

Pension supervisory authorities around the world have been following other financial sectors and moving towards a risk based approach to pension supervision. This can be recognized as a structural methods aimed at identifying the most critical risks that face the pension funds and, through a focused review by the supervisor, assessing the pension funds' management of those risks and the pension funds' financial vulnerability to potential adverse experience.

A key part of a risk based approach to pension fund's supervision involves the supervisory authority transitioning from checking detailed compliance requirements for the operation of pension funds to reviewing the internal decision- making methods and bodies of those funds.

One of the main objectives of risk based supervision is to ensure sound risk management at the institutional level taking into account both the quality of risk management and the accuracy of risk assessment. Stewart, F. (2010). "Pension Fund Risk Management Framework: Regulation and Supervisory oversight," [OECD (Organization for Economic Cooperation and Development)] working papers on insurance and private pensions.

In order to ensure sound risk management, Risk management framework must be implemented. The risk management framework can be defined as the methods effected by an organization's board of directors, management and other personnel- designed to provide reasonable assurance regarding the achievement of objectives in terms of effectiveness and efficiency of operations; reliability of financial reporting; and compliance with laws and regulations.

The methods doesn't involve just one policy or procedure performed at a certain point of time should be continually operating at all levels of the organization, and involve all

staff. Franzen, D (2010). “Making Investment Risk Management in Pension Funds” OECD working papers on Insurance and Private Pensions, OECD Publishing.

2.2.12 Financial Sector Risk-Management Requirements

a) Other financial sectors

High level risk management requirements are laid down for entities operating in all financial sectors (Stewart: 2010). For example the Basel Committee on Banking Institutions Supervision (BIS): Core Principle for Effective (CPE) Banking Supervision as quoted by Stewart states that: Supervisors must be satisfied that Banks and Banking groups have in place a comprehensive risk management in methods (including board and senior management oversight) to identify, evaluate, monitor and control or mitigate all material risks and to assess their overall capital adequacy in relation to their risk profile. These methods should be commensurate with the size and complexity of the institution.

The International Association of Insurance Supervisors (IAIS) addresses the issue in their Insurance Core Principle – ICP 10 (IAIS 2003); ‘The Supervisory authority requires insurers to have in place internal controls that are adequate for the nature and scale of business. The oversight and reporting systems allows the board and management to monitor and control the operations.

2.2.13 Pension Sector

OECD guidelines outline requirements regarding the risk management system of pension funds. For example the OECD (2004) (2.4) in its published paper “Principles of Occupational Pension Regulation” states that: Pension entities should have adequate risk control mechanisms in place to address Investment, Operational and Governance risk as well as internal reporting and auditing mechanism.

The requirement is echoed in the EOCED guidelines of Pension Entities (OECD 2008) (3.1). The licensing guidelines elaborate on the topic of risk management, explaining that: “Risk Management Procedures contribute to sound corporate practice and help to establish adequate risk measurement and management systems. These procedures include mechanisms to identify and address conflicts of interest and operational risks, such as those linked to technological failures. Specific tools are also required for the assessment and management of investment risks and other risks related to Pension Funds

In addition the OECD’s Guidelines for Pension Funds Governance (OECD 2009) address the risk based internal controls as part of the governance mechanisms: There should be appropriate controls in place to ensure that all personnel and entities with operational and oversight responsibilities acts in accordance with the objectives set out in the pension entity’s by-laws. Stewart, F. (2009). “Pension Fund Risk-Management Framework: Regulation and Supervisory Oversight; EOCED working papers on Insurance and Private Pensions.

The International Organization of Pension Supervisors (IOPS) has guidelines on the supervisory Assessment of Pension Funds (IOPS 2008) which states that one of the objectives of the regular monitoring of pension funds as: “check risk management systems in place at the pension fund and therefore the fund’s ability to handle the above risks.”

As one can see from above, the broad risk management requirements laid down by different financial sectors are similar. It should therefore be of no surprise that the more detailed guidance provided by various international bodies on how these main requirements should met are also comparable.

2.2.14 Detailed Risk Management Guidance

Risk management systems can be broken down into four categories, with guidance for how to implement each aspect provided in the above recommendation: The four categories are management oversight and culture, strategy and risk assessment, systems control and information, reporting and communication.

2.2.15 Determinants of Risk Management Effectiveness

An effective risk management is one that produces materially complete information on a timely basis on the organization's residual risk purpose. The system needs to be re-evaluated each time a significant risk materialized that was not foreseen. In cases where frequency and severity estimates were materially wrong, efforts needs to be taken to see if the information can be improved.

L. Tim, (2012). Principles for Pension Schemes Operational Risk Management Retrieved on March 04, 2010, from the World Wide Web:

<http://www.subscriber.riskbusiness.com>

Clayton thinking is that, whether the risk management methods is effective should be measured by looking at results, not just the methods. He says an effective risk management is one where there is appropriate risk culture, decision (at all levels) are based on understanding and consideration of risk and risks that are either above or below risk targets are managed towards that target. This implies continuous monitoring of risk levels and adjustment of responses, with appropriate communication throughout the organization. Management's methods have to provide a reasonable level of assurance that risks are identified on timely basis, fairly addressed and appropriate actions taken

Clayton, D. (2011). Pension Funds Risk Management Framework. Retrieved 01.03.2014, from the World Wide Web: <http://www.riskmanagement.org.nz>.

B. Deon states that: Effective risk management is when each risk event identified is examined through the lens of both the direct loss to the firm and indirect that may arise because of damage to the firm's reputation associated the event.

Deon, B. (2008). Entity-Wide Risk Management for Pension Funds. Retrieved March 04, 2014, from the World Wide Web: <http://www.actuaries.org.uk/system/files>

Effective risk management consists of repeatedly electing a course of action from available options (including the option of doing nothing) consistent with an accurate understanding of stakeholders' risk appetite and time horizon (which implies communication of expectations by stakeholders) carried out by competent (skilled and experienced) personnel with timely monitoring by those personnel and by the stakeholders or their representatives so that appropriate adjustments can be made as conditions changes.

M.H.D. Kemp and C.C. Patel (2011) Entity-Wide Risk Management for Pension Schemes A discussion paper from World Wide Web:
<http://www.nematram.com/EntityWideriskmanagementforpensionfunds.aspx>

2.2.16 How to determine the effectiveness of risk management

After we have seen the various meaning of effective risk management by different scholars, let us look on the concept of Entity-wide Risk Management and then how to measure Enterprise Risk Management Effectiveness. According to M.H.D, Kemp and C.C Patel in their paper "Entity-Wide Risk Management for Pension Funds," they use the term Entity-wide Risk Management because many Pension Funds don't view themselves as business enterprises as such. Some of the techniques that business enterprises have for managing risk (e.g. raising new capital from share holders or branding into new business areas if existing ones have unattractive risk reward characteristic) may not be open to many pension funds.

However this depends on the legal nature of the specific country in which the fund is operating. For example in the United Republic of Tanzania, Pension funds (e.g. NSSF) are not business entities but are government agencies for providing a wider range of benefits which are based on internationally accepted standards to employees of private sector, non pensionable parastatals and government employees. Therefore they cannot be listed companies, can't issue shares but may invest in government securities which are risk free.

2.2.17 How to Measure Enterprise Risk Management Effectiveness

The key question to risk managers is: how do I measure the value ERM is delivering to the organization (Steven: 2012). The following are examples of measures that will quantify and measure the value your ERM is delivering.

(i) Number of systemic risks identified

Systemic risks identification will detect areas of upstream and downstream dependencies through your organization, such as when one area of the organization is unknowingly causing strain on other areas. Additionally, this method could also identify areas that would benefit from centralized controls so the extra work of maintaining separate activity level controls is eliminated increasing organizational efficiency.

(ii) Percentage of methods areas involved in risk assessments

ERM is cross functional in nature and can't be done in silos. An organization is the sum of its parts. The same is true of risk. A risk event in one functional area also affects other functional areas within an organization. Methods owners own the risk; risk managers own the completeness, timeliness and accuracy of the risk information. The more methods owners are involved in risk assessment, the more accurate and forward looking the information collected will be, both of which are hugely valuable to the organization.

(iii) Percentage of key risks mitigated

Having a sense of your risk coverage is important; however, it is not nearly as valuable as knowing the coverage of your organization's key risks. Because all risk assessment must be conducted on standardized criteria, you can determine a uniform tolerance, or cut level throughout the organization based on the resulting assessment indexes. This will help you to prioritize resources to the risk that need stronger coverage, rather than wasting resources on risks that will have no major impacts on your organization. This gap analysis with a tolerance level will also help you to identify emerging risks as they rise out of tolerance and it becomes clear that some mitigation activities in place are no longer sufficient.

(iv) Percentage of key risks monitored

Most organizations have no understanding of how the business measures that they rely on daily are tied to their risks. If a risk or activity changes, organizations have no way of knowing how, and if, these changes will affect their metrics. Through risk assessment and linking risks to activities, organizations can start sporting what activities need to be monitored. Regular risk assessments enable organizations to detect increased threat levels and identifying new emerging risks before they materialize and bring business metrics out of tolerance.

2.2.18 Critical Success factors for effective risk management

As the starting point, the definition of Critical Success Factors (CSF) are introduced by Rocharf (1979, p. 84). He defines Critical Success Factors as "the limited number of areas in which results, if they are satisfactory will ensure successful competitive performance for the organization.

According to Freund (1988), explained CSFs concept as the most important for overall organizational objectives, mission and strategies. Some of CSFs commonly used are as follows:

i. Commitment and support from top management

Ifinedo (2008) investigates the impact of contingency factors such as top management support, business, vision and external expertise. The results show that top management support influences the success if level if the organizational system. (Na Ranong and Phuennngam quoted by Carey, A).

The paper from Zevikad (2008) argues that the high importance of high management support is considered to be among the critical success factors for effective risk management.

Critical top management support includes a broad range of activities in an organization such as developing project procedures that includes the initiation stage, training programs and support quality management.

ii. Communication

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

iii. Culture

The definition of culture has been described in many ways. Hofistede (2001/ p 9) defines culture as “the collective programming of mind that distinguishes the members of one group or category from another.

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

iv. Organizational Structure

Stank, Daughtery and Gusten (1994) believe that organizational structure involves an organization's internal patterns of relationships, authority and communication. Structure is comprised of formal lines of authority and communication and the information as well as data that flow along these lines. Thus organizational structure defines the lines of authority and communication, serves to allocate tasks and resources and provides the means of coordination.

v. Information Technology

Organization need to consider IT (Information Technology) as an important factor in the face of increasing competition, higher performance levels, globalization and liberalization.

It plays a key role in achieving an organization's objectives. It relates to all aspects of the business methods including access to shared infrastructure consisting of knowledge, human assets, core competencies, resource allocation and performance management. (Mutsaers, Zee and Gietz 1998)

2.2.19 Conceptual Frame Work

2.2.19.1 Dependent Variable

This is one that changes in response to change in other variables. The dependent variable during the study will be Effective Risk Management.

2.2.19.2 Independent Variable

This is the one that causes changes and will include Risk management Framework, Organizational planning and management, Risk Management policy, Risk Implementation Strategy and Internal and External Environment.

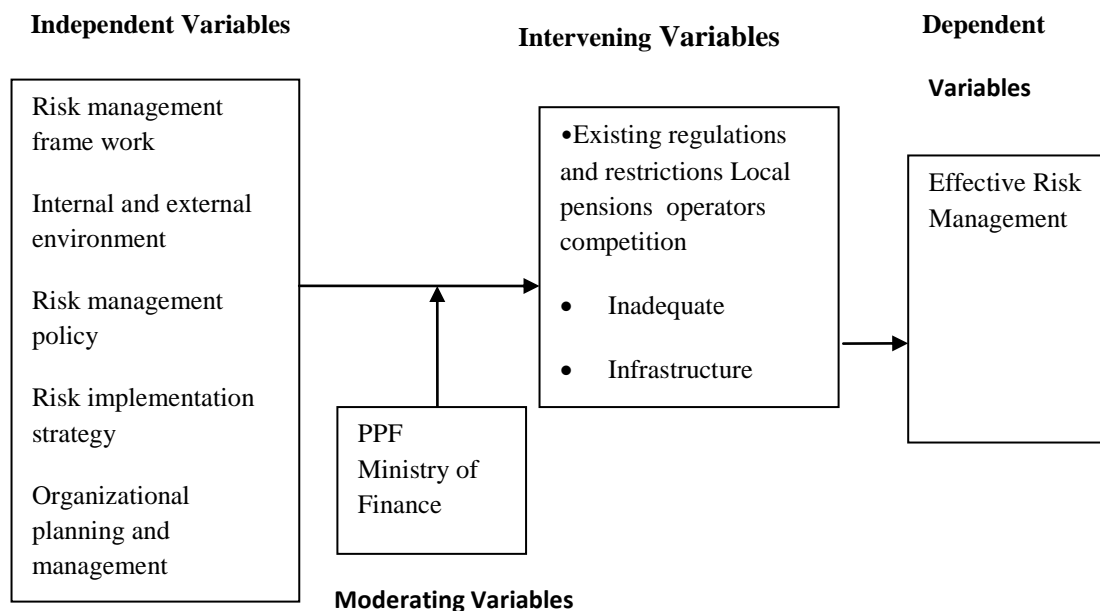
2.2.19.3 Intervening Variables

The intervening variables are those which in one way or another affects the balance between the independent and dependent variables, the changes in existing regulations and restrictions, local pensions operators competition and inadequate Infrastructure also affects the performance of the independent or dependent variables.

2.2.19.4 Moderating Variables

These are national levels policies either by the ministry with the mandate on all financial matters or the organization itself when it change any approach in its operation the original challenge might also need a new way of addressing.

Figure 2.2: Relationship between dependent variable and independent variable.



Source: Researcher's own Construction 2014

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

Research methodology is a way to systematically solve the research problem. It may be understood as science of studying how research is done scientifically. The various steps that are generally adopted by a researcher in studying his research problem along with the logic there on them (Kothari: 2003).

This chapter provides detailed explanation concerning the area upon which the study shall be conducted, thresholds and instruments which the researcher shall use for data analysis and presentation.

3.1 Research Design

According to Kothari (2004), research design is the arrangement of conditions for collection, analysis and presentation of data in sequential frameworks to reach the intended end. It constitutes the blue print for collection, measurement and analysis of data. Thus research design consists of the area of study; type of data required (secondary and primary), sample frame (target population) and sample size, sampling techniques, method of data collection and data analysis procedures. This study employed case study design because the research was done for the purpose of acquiring data in detail about the topic in question and it was conducted at single place (one office only) i.e the PPF Head Quarters in Dar es Salaam.

According to Hartley 1994, cited by Brotherton (1999), a case study consists of a detailed investigation often with data collected over a certain period of time with a view to provide an analysis of the context and methods involved in the phenomena under study.

3.2 Area of the Study

The research activity was conducted at Parastatal Pension Fund (PPF) Head Quarters which is situated at Azikiwe Street, Ilala District in Dar es Salaam region. The area of the study has been selected for the study because it is easily accessible for collecting sufficient data and it is the only office that has a department of risk management. Also it was easy for the researcher to access both primary and secondary data and any other information relevant for the research work

3.3 Target Population

Population refers to a large group of people possessing one or more characteristics in common on which a research study focuses (Creswell 1994). The target population is the group of subjects from whom the researcher expects to draw conclusion about the research topic (Kothari 2004). This study targeted the population made up of forty-six employees from different directorates and Units as follows; Directorates of Risk Management, Internal Audit, Planning and Investments, Finance, Legal, Operations and Procurement Unit.

3.4 Sample Size and Sampling Techniques

A sample is a small group of subjects drawn from the population in which the researcher is interested in gaining information and drawing conclusions about the universe (Kothari 2004). Moreover it enables the researcher to achieve objectives with reduced resources (Bernard 1995).

Table 3.1: The allocation of the expected sample size

S/N	Directorate/Department	Staff	Number of Respondents
1	Procurement Unit	Director Assistant Director Procurement Manager Principal supplies officers Senior supplies officers Supplies officers	1 1 1 2 2 4
2	Directorate of Internal Audit	Chief Internal Auditor Principal Internal Auditors Senior Internal Auditors Internal Auditors	1 2 2 4
3	Directorate of Risk Management	Director of Risk Management Risk Manager Assistant Risk Managers Risk Officers	1 1 2 4
4	Directorate of Finance	Director Assistant Directors Treasury Manager Chief Accountant Principal Accountants Senior Accountants Accountants	1 1 1 1 2 2 4
5	Directorate of Planning and Investments	Director Assistant Directors Principal Economists Senior Economists Planning Officers Investment Officer Economists	1 1 2 2 2 1 3
	Directorate of Operations	Contributions manager Pensions manager Contribution Officers IT manager Help Desk Officer	1 1 3 1 1
		TOTAL	60

Source: Researcher's field Data 2014

3.5 Sampling Techniques and Procedures.

This research employed purposive approach to gather all the information because it suits the purpose of the study which mainly focuses on the particular entity. Through this approach the researcher was able to collect reliable information with higher convenience from the key responsible individuals in each directorate in the organization.

3.6 Data collection methods

In the research work done, the sources of data included both secondary and primary

3.7 Secondary Data

Secondary data are those which have already been collected by someone else and which have already been passed through the statistical methods (Kothari 2004). For this research work, secondary data to be used include various publications, technical journals, books, magazines, newspapers, action plans and reports related to the field of risk management.

3.8 Primary Data

Primary data was collected from the respondents using self-administered questionnaire and interviews. The data was obtained from the field for the purposes of answering research questions/issues.

3.9 Questionnaire

This refers to collection of data where questionnaire is sent (usually by post) to a person concerned with a request to answer the questions and return the questionnaire. A questionnaire consists of questions printed in a definite order. (Kothari: 2004). Questionnaires were distributed to the said sample of 46. The self-administered questionnaire was developed and distributed to the respective respondents including senior level, heads of departments and other operational staff in all departments within

the organization. Questionnaires consist of mainly open ended questions which enabled the researcher to maintain comparability among the respondents.

The Researcher used this method of data collection because it gives the respondent enough time / room for responding to the questions exhaustively and therefore help the researcher acquire relevant information and explanations on matters relating to the research questionnaires he prepared.

3.10 Interviews

Interview refers to data collection technique that involves oral questioning of respondents either individual or in group (Kothari 2002). This method was used by the researcher as it gives a chances to communicate face to face with respondents and it provides chances to clarify issues. Both structured and unstructured interview was applied to top management and senior officers who deal directly with all directorates with PPF.

The researcher used interview method for gathering data because it helps the researcher get in depth explanation and clarification on matters which the researcher sought needed further explanation from more specific respondents for example directors and Heads of Unit.

3.11 Observation

This is data collection method where by the information is sought by way of investigator's own direct observation without asking from the respondent. For instance, in a study related to consumer behavior, the investigator instead of asking the brand of wrist watch used by the respondent, may himself look at the watch (Kothari: 2004). The researcher during the study was attached to PPF risk management department; whereby he was able to observe the general operations within the department.

The researcher used the observation method because he wanted to satisfy himself as to whether the information he got from the interviews and questionnaires really happens during the operations of the funds activities. For example the researcher attended and observed the management discussing the various reports from directorates when addressing on the risk facing the fund from risk owners.

3.12 Data Analysis Methods

Descriptive analysis was conducted based on the information collected from primary sources. Since the researcher uses open ended questions and structured interviews. All the responses were then coded well and grouped under specific objectives it addresses. For those with quantitative data were analyzed using SPSS. The data was subjected to (SPSS 16) program before carrying out an analysis, checking the data for accuracy, entering the data into computer, transforming the data and developing and documenting data base structures that integrate various measures were done. Also that information gathered through observations was merged in a meaningful standard. The analysis of data was aimed at organizing them in the way that they provide answers related to the research questions and explain the current situation on the effectiveness of the methods used in controlling the risks facing pension funds.

3.13 Data Validity and Reliability

Validity explains the accuracy and truth of the data in research, while reliability means that if the research is repeated by the respondents or independent observers with the same methods, they will get the same results or data (Kothari 2004). For the purpose of achieving validity and reliability, the questionnaires are designed in such a way that they capture relevant information for the research objectives.

CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION OF THE RESULTS

4.0 Introduction

This chapter consists of an analysis of the data collected, descriptive statistics of that data, brief explanations around the findings and the summary of the risk management and investment policies which are used by the Fund as guide for risk management and investment activities.

Table 4.1 Sample size and Respondents who participated in the study

Directorate/Unit	Number of the Staffs Expected to Participate in the Study	Number of the Staffs Participated in the Study	Total Percentage
Procurement Unit	11	7	64
Directorate of Internal Audit	9	8	89
Directorate of Risk Management	8	6	75
Directorate of Finance	12	10	83
Directorate of Planning, and Investments	13	10	77
Directorate of Operations	7	5	71
Grand Total	60	46	77

Source: Researcher's field data, 2014

4.3 Background Information of Respondents

A total of 46 respondents fully participated in the study, questionnaires were distributed, all got completed usable questionnaires were returned in and correctly filled for a response rate 77 %. This is a reliable response rate for data analysis. In all directorate the participation as shown above is 50% of the required staffs, off all

directorates higher participation was noted from Internal Audit (89%) followed by Finance(83%), Planning, Investment and projects (77%) and risk management (75%) respectively. The respondents gave their responses using questionnaire. Data have been analyzed through descriptive statistics that presents results obtained from the survey by use of interviews, content analysis and observations.

4.4 Demographic information

As part of the general information, the researcher requested the respondents to indicate their gender and education level and working experience.

4.4.1 Gender of respondents

The data in the table below about PPF staff level which has been analyzed reflected that of the total 46 respondents involved in this study 67% were males and 33% were females. The data analyzed suggest that the majority of PPF staff (participated in this study) were male/Female.

Table 4.2 Gender of respondents

Sex	Frequency	Percentage
Male	31	67
Female	15	33
Total	46	100

Source: Researcher’s field data, 2014

4.4.2 Education of Respondents

The table 4.2 below show the data about PPF staff of professional qualification level which has been analyzed by using percentage. The findings shows that majority of the staffs were diploma holders 33%, while 26% of them were first degree holders. Only 20% of the respondents were holding postgraduates degrees and were mainly the heads of the directorates. The remaining 22% were those who hold certificates respectively. When probed by the researcher on whether they do receive on job

training almost 68% of them not frequently being given chances for attending such skills improvement trainings.

Table 4.3 Education of Respondents

Qualification	Frequency	Percentage
Postgraduate degree	9	20
Bachelor degree	12	26
Diploma	15	33
Certificates	10	22
Total	46	100

Source: Researcher’s field data, 2014

4.5 Description of findings in relation to specific objectives

The researcher here focused on the specific objectives which were answered through the list of questions added in the appendices. The questions mainly addresses the research questions which jointly wanted to come up with the sole determinants in the effectiveness of the controls methods applied to deal with the risks in the pension funds organization. That being the case the following responses from the respondents involved in this study answers all basic questions.

4.6 Factors which engender risks occurrence in pension funds business Settings

Respondents from questionnaire revealed that people processes and internal and external environment are the factors that favour risk occurrence in the organization, while the respondents from interview shows that, systems are the favorites for risk occurrence in the organization.

Off all the six interviewee in Risk directorate who filled the questionnaire with regard to the question on factors favoring the occurrence of risk in pension funds business settings, 4(67%) of them listed the following as the factors favoring risks occurrences in their organization

i. People

When responding to the above question, 55% of all the respondents from all departments considered people as the significant factor which favors the occurrence of risk in the work place or institution such as PPF. The described it as a risks caused by various employees in the fund when conducting their daily assignments and work. They are actions/ issues like human error and deliberate actions. In human errors an employee can make a mistake while performing the duties which may result into harm to the fund. This are being done without deliberate motives by the employee but have negative impact to the Funds performance and reputation e.g. unintentional wrong recording of members contribution may cause statistical discrepancies.

Another form of risk is that caused by an employee(s) intentionally for the purpose of making employees' personal gains at the expense of the Fund. It includes such matters like internal fraud and colluding with outsiders to commit actions that may cause harm or loss to the Fund. For example stores manager may collude with the supplier of goods and services to increase the price of goods and services for the purpose of gaining financial advantage at the expense of the Fund.

ii. Processes

On the other hand 20% of the remaining respondents explained that for them the processes governing the implementation of the various activities is the cause of risks. For instance they described that in the area of processes it may happen that some of the processes don't work well bearing in mind that all processes have been established for the purpose of achieving the Fund's strategic objectives. When a process fail to operate efficiently or absolutely then there is a risk that the Fund may fail to achieve its objectives as a result of poor performance of the process.

The processes established for saving organizational functions may not be working efficiently. This may result into the funds failure to operate efficiently and hence funds failure to deliver its services to its members efficiently.

On the other hand the processes would have not well designed to suit the requirement of the funds operations. As a result this may cause the risks of the fund performing ineffectively

iii. Systems

Moreover 15% of the respondents respondent that, systems used in the daily operations of the Fund may be experiencing technical problems. For example the computer systems may fail to operate effectively because of power interruption and computer viruses which cause computer systems fail to operate.

iv. Internal and external environment

Only 10% of the total respondents thought that the causes of the risks occurrence could be both internal and external environment. These are events which happen inside and outside the Fund and have some impact to the Fund's operations.

Internal environment are matters like employees skills, integrity, loyalty and competences. If the employees are competent and well skilled they are likely to perform their assignments effectively and then avoid any kind of risks which might face the Fund if they didn't possess the mentioned qualification.

External Environment are matters like economic conditions and competition. The economic conditions such as market growth economic cycles, capital movements and foreign exchange rates may affect the fund adversely and hence pose the risk of it achieving its objectives. In competition there are competitors mainly other social security funds who also are competing with PPF in the some social security market. This poses a risk for the fund in terms of market positioning.

While the remaining 2(33%) of the respondents under the same directorate of Risk management mentions other issues related to interdepartmental cooperation for smooth running of the activities.

4.7 Key methods used to address the risks faced by pension funds.

On this objective the respondents from questionnaires revealed that monthly risk management reports and quarterly risk management reports are the key methods used to assess the risks faced by the pension fund. On the other hand interview revealed that outright communication, risk events reports and process review reports are the key methods for addressing the risks faced by the fund.

i. Monthly and Quarterly risk management reports

These are reports prepared at directorate and unit levels which reveals or shows the risk indicators and the possible risks that may be a result of those risk indicators. They show what are the risks controls which have been implemented to control the risks and how these risks were evaluated in order to see where they fit against the funds overall risks criteria. About 14(30%) of the respondents mentioned that monthly management reports are crucial since it allows, the risks owners to look at the risks identified/indicators, their likelihood of occurrence, their potential consequences and their acceptability status hence give the room for smooth management.

ii. Risk Events /indicators reports

Risk events reports to the number of risks events occurred during a certain period of time usually a month. About 18(40%) of the respondents mentioned that this is the immediate method they uses in dealing with risks. They further explained that those risks indicators occur in different sections of the Fund. They occur in different directorates or units. For example it may happen in the directorate of finance that the daily bank Reconciliation statement didn't balance. This is a risk that the Fund's cash may have been wrongly debited in its bank Account by the bank or there may be some unknown credit in the bank account. This poses a risk that the fund may have some cash in its bank account which doesn't belong to the fund or its cash have been spent by the bank through fraud by bank employee.

This event and other events which are not within the Fund’s operations are considered as potential risks which must be reported to the directorate of risk management so that they can be dealt with accordingly. For operationalization a tool called management key risk indicator (MKRI) table below is used.

Table 4.4 Management Key Risk Indicators for addressing risks

SN o	MKRI	Measure	Score	Details	Remarks/Recommendation, if many
1	Financial Error/omission in the monthly reports	Value			
2	Non compliance with financial reporting standard	Number of areas			
3	Bank reconciliation not done timely	Number of outstanding months			
4	Receipts not in bank statement	Value			
5	Unknown credits	Number/value			
6	Long outstanding unknown credits for more than three months	Number/value			
7	Unknown debit from bank apart from bank charges and service fees.	Value			
8	PO/GRN that has been outstanding for more than 3 months	Number of months			
9	Fraud attempt during the Month	Number/value			

Source: Researcher’s field data, 2014

iii. Process review reports

These are reports which are prepared by each directorate or unit which shows how the processes in each of the section were carried and the associated risk indicators (risk events). It shows the controls in place at the time of the event for managing the risks events. It is a summary of what happened in the directorate, the risk arose and the measures taken to minimize the risks, about 6(12%) of the total respondents involved in the study directly reported that process reviews reports is among the key methods for addressing the risks that the organization might encounter.

Furthermore to clearly link their explanation with how they really address risks using process reviews reports, the respondents from the directorate of risk management provided the following details;

The scoring system of SIGNIFICANCE x LIKELIHOOD is to be used. The maximum score is therefore 5 x 5 or 25 for a risk which is extremely significant and almost certain. The table indicates the status of risks and the “traffic lights system” in general use in PPF A score 12 and above is regarded as needing full risk management.

Table 4.5. Scoring system of significance and likelihood used for full risk management.

IMPACT	EXTREME	5	M	M	H	H	H
	HIGH	4	L	M	M	H	H
	MEDIUM	3	L	L	M	M	H
	LOW	2	L	L	L	M	M
	NEGLIGIBLE	1	L	L	L	L	M
			1	2	3	4	5
			RARE	UNLIKELY	POSSIBLE	LIKELY	ALMOST CERTAIN
			LIKELIHOOD				

Source: Researcher’s field data, 2014

Table 4.6 Impact and Likelihood definition

Impact	Likelihood of the risk to occur	Consequence score (measure definition)	Rating	Score
Catastrophic impact on organization threatening its existence	Almost certain	Extreme	5	25
Threaten the organization to achieve all or major part of its objectives	Probable	High	4	16
It stop the organization to achieve its all objectives for limited period	Possible	Medium	3	9
Its stop organization achieve some of its objectives for limited period	Unlikely	Low	2	4
Cause minor inconvenience not affecting achievement of objectives.	Rare	Negligible	1	1

Source: Researcher’s field data, 2014

iv. Quarterly risk management reports

These are reports which show the risks indicators at the directorate and units levels and the possible risks associated controls implemented for addressing the risk indicators and the risk evaluation to see where the risks fit against the funds overall risks criteria. About 5(10%) of the respondents mentioned that this is actually like a monthly risk management reports but the difference is that it covers a period of three months and more consolidated, meaning that includes all the directorates and units three months reports.

v. Outright communication to risk owners.

These are formal official meetings where the directors and heads of units present their respective risk management reports. With regard to this method about 4(8%) of the respondents explained that this method include reporting on the risks identified, how they were assessed, controlled, evaluated and communicated, through these kinds of official meetings the risks are communicated to the management especially the risk

management directorate where necessary actions are implemented mainly for managing the risks through the risk management process.

4.8 The effectiveness of risks controls methods on the investment decision making

On this objective, the Questionnaires revealed that review of operations is a tool that shows how effective the risk controls are on decision making. The interview showed that the internal Audit reports and Risk register reports is a tool that shows the effectiveness of the controls of risks.

When asked on the effectiveness of risks controls methods on the investment decision making, all key respondents from each directorate, significantly explained that the effectiveness of the risk controls methods are mainly influenced by the nature of the operational, the environment in which business is being conducted and the policy guiding the implementation processes. This being the case the respondents also mentioned that the functionality of the following listed features is what defines the effectiveness of the controls methods for managing the particular identified risk in each directorate and units respectively:

- i. Review of operations

This refers to the review of operations of the Fund during a specified period of time. In reviewing the operations, the controls of risks are also reviewed to check whether they were in place and the role they played in mitigating the risks identified to at least acceptable levels. The effectiveness of the controls are measured by looking at the extent to which they have mitigated or even eliminated the risk indicators seen and hence avoid the risks that might have occurred if the controls were not in place.

It means, there is no direct quantitative measure of the effectiveness of risk controls but rather on qualitative measures based on the extent of the risks mitigated. After review of operations most of the controls have proved to mitigate to acceptable levels all the risks identified.

The researcher tried to get some operational review reports concerning as one of information but unfortunately couldn't access it because the management of the organization claimed such reports were meant for internal use only.

ii. Risk Register Reports Reviews

Another form of establishing whether the controls have been effective is through review of risk register reports. This indicates or shows the Risk, specific causes, Gross Risks (Risks if current controls were not implemented), Net Risks (Risks if current controls were implemented), indicators and mitigation strategy. From these reports, the controls implemented to reduce the risks as shown from these reports reduced the risks to acceptable levels of the Fund and therefore they were effective.

Table 4.7 A simple Risk Register for the business unit (PPF)

<i>Sn</i>	<i>Risk</i>	<i>Specific causes</i>	<i>Gross Risks</i>				<i>Net Risk</i>				<i>Mitigation Strategy</i>
			<i>Likely hood</i>	<i>Impact</i>	<i>Risk Rating</i>	<i>Current Controls</i>	<i>Likely hood</i>	<i>Impact</i>	<i>Risk rating</i>	<i>Indicators</i>	

Source: Researcher's field data, 2014

iii. Internal Audit Reports

One of the tools used to measure the effectiveness of the controls is through the Directorate of Internal Audit. The Directorate conducts regular audits quarterly on the Fund's risk and then giving assurance as to whether there are risk controls in place, used and are effective in managing risks. Most of the internal audit reports submitted to the board of trustees gave assurance that the controls in existence in various directorates reduced the risks to acceptable levels and hence they were effective. The Researcher tried to get some audit reports concerning the internal audit reports as one of information but failed for management claimed such reports were meant for internal use only.

Basically the effectiveness of the controls in the Fund is usually measured qualitatively by looking at various operations of the Fund (operations and other reports) and analyzing them with respect to risk management policy, processes and existing circumstances with the detail information on how the risks indicators identified were dealt to minimize its occurrence.

All of these are looked at with respect to the major risks facing the company and the perception of the Fund's management in their respective business units (directorates and Units)

4.9 The controls used by the organization to reduce the consequences of risks

On the issues of the controls for reducing the consequences of risk, all of the data collection methods revealed that the controls used by they fund to reduce risks are different from one directorate unit to another depending on the nature of activities of each directorate / unit. Almost over 76% of all respondents who responded on the question on the controls used by the organization to reduce the consequences of risks cited that the controls implemented for example in the directorate of finance are not the same as those implemented in the directorate of operations. The directorate of

finance deals with finance matters while the directorate of operations deals with registration of members and collection of contributions. Therefore the risks of these two directorates are not the same to one another hence the controls. But on the other hand, some of the controls are dealt with through the establishment of lines of defense for Example the Audit function, and the risk management functions.

Risks Control in the Directorate of Finance

The major functions/activities of the directorate of finances are receipts of funds from members issue payments for investments activities pay benefits and coordination of the budget implementation to approved limits.

The risks faced by the directorate on the bank transactions include unrecociled Bank Balances, Unknown credits on the Bank Statements, and unknown debits on the Bank Statements and deposits by the Fund not in the bank statements. All of those pose the risk of loss of cash to the fund or overstatement of Bank balances. The control for such kind of risk facing the directorate is mainly preparation on daily basis of the Bank Reconciliation Statements which is a tool for identifying all these errors. When these errors are identified immediate action for correction of those errors is taken.

Another example is the risks associated in the Operations Directorate (contribution department).the risks encountered by this department includes

i. Wrong contributions remitted by employers

It happens some of the employers submit smaller amount of the contribution into the fund because of some reasons for example non incorporation of salary increments into member contributions information. Technically speaking this causes loss of contributions to the organization and misunderstanding between members and the Fund. Also some employers collude with their uniformed employers and remit smaller amount of contributions to the fund, this at last bring some chaos from members by claiming the larger amount of benefits of which they are not entitled legally because of the amount of their contributions.

Employers do this illegal action for the purpose of reducing the burden of their statutory obligations of playing their legal part contributions arrangement.

ii. Delay of Contributions

This happens when the employer fails to remit contributions within the stipulated time, usually one month from the date of payroll. This causes the fund to lose contributions on time and sometimes it happens that the employer suffer operational losses and closes down business without remitting employees contributions. This causes loss of contribution which may result into failure to meet target collection.

Controls

i. Education

The fund conducts education programs to members through seminar to various members of the Fund (both employers and employees) so that they are aware of their statutory rights and obligations

ii. Inspection

The fund through this department perform/conduct inspections for various employers so as to acquire information on such matters as number of employees and their respective monthly salaries to establish assurance as to whether the contribution made match with the amount of salaries paid to employees and contribution made to the Fund

Also for instance the risks associated in the procurement Unit includes the;
Failure of supplier to deliver goods on time.

Sometimes it happens that suppliers do not deliver goods and services timely, this results in the Fund's being unable to complete its activities/operations on time because

of such delays an issue that may result into financial loss to the Fund. The control to this is to include a clause into the contract that if delivery is delayed then the supplier shall compensate the fund all the costs resulted from such delays and the estimated compensation is pre explained in the contract

Supplier delivers substandard good

It may happen that the supplier delivers substandard goods/goods of different specification; these results into delays of operations for such goods cannot be used for the intended purpose and also financial losses. The control to this is to include a clause into the contract that if delivers substandard goods, then the supplier shall compensate the fund all the costs resulted from such deliveries and the estimated compensation is pre explained in the contract

Contractor performs substandard work

It happens that the contractor may complete a work but the evaluation committee finds out that the project was constructed below standard; this may result into financial loss to the fund. The control is to include a clause in the contract that where the contractor performs substandard work, then he won't be paid and he shall be sued before the court of law for compensation purposes.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Introduction

This chapter gives the discussions of the research findings presented and interpreted in chapter four and presented in accordance to the research objectives. It further gives an interpretation of the study findings. Respondents were asked a variety of questions pertaining to their knowledge, skills and dispositions Major findings of this study was that it mainly pointed out how risks controls methods effectiveness are being assessed for appropriate management of the particular risks encountered during the operations of the planned activities.

5.1 Key methods used to address the risks faced by pension funds.

The findings of this study for instance pointed out that the organization uses the techniques such as process reviews, monthly reviews reports and periodic operational reports as explained in the findings and incidents reports, observations and consultations. But in the literature reviews the identification process considers each strategy, activity or function, looks at what is critical to the success of that activity, strategy, function and considers what may go wrong or in other words a risk. This finding greatly differs with what the previous authors mentioned as the major measures for addressing the risks.

5.2 The effectiveness of risks controls methods on the investment decision

The findings of this study contrary revealed that risks were assessed through its impacts and likelihood of occurrence and the strength of available controls with respect to the nature of activities and then recommend way forward while other authors revealed that effectiveness of controls are looked at as a whole in terms of their adequacy in managing risks and their adequacy are assessed on the common sense qualitative basis. That is a reasonable test: are you doing what is reasonable

under the circumstances to manage (prevent or minimize the risk). James S. et al: 1999).

From these aspects of the researcher and Authors, the control methods seem to be logically similar because they depend on the common sense qualitative basis i.e. what is the best to do on circumstances to manage the risks. On the other hand the controls employed by the fund depend mainly on the nature of activities which is similar to the Author's view of using common sense qualitative basis.

5.2.1 Financial performance

One of the key indicators of the Risk management performance indicators are the financial performance of the Fund as shown from the investment activities and their respective income generation and the steady growth of the fund from time to time. The two policies which act as guidelines for investment decisions are Risk management policy and investment policy.

After conducting the Risk management activity the fund invests its funds in securities which have high yield, high return as explained in the investment policy. This helps the fund achieve its goals by generating acceptable returns from investment activities.

The financial performance which reveal the investment and investment income for 2008 and 2012 financial years are presented under this table.

Table 5.1 Financial Performance 2008 to 2012

Figures in Tsh.(000,000,000)

Item	YEAR				
	2008	2009	2010	2011	2012
Contribution Income	109.78	136.60	147	187.5	226.5
Investment Income before tax	62.24	67.08	43.45	91.3	111.2
Benefits Paid	36.88	47.19	63.82	71.88	99.4
Net increase in size of the fund	108.04	125.52	97.29	172.05	196.9
Size of the fund	499.33	624.85	722.5	894.52	1,091.5

Source: Field data 2014

This performance report shows that risk management process largely contributed in making rational decisions concerning where to invest by identifying the risks, assessing them, evaluating existing controls and hence invest in securities that yielded adjusts returns for the growth of the fund (size of the fund) and investment income as shows from the table of the Fund's financials performance.

5.2.2 Investment policy

But on apart from having the risk management policy the researcher has revealed that there is an investment policy that is used by the Fund for making sure that investments made will be productive and economically viable to the Fund.

5.3 The controls used to reduce the consequences of risks and evaluation of the effectiveness of such controls measures

In the findings the controls were identified as in respect of the nature of the risk or nature of the activity which is to be controlled while in the literature reviews the controls mentioned to reduce the risks includes substitution, elimination, engineering, administration and personnel protective equipment's which measured in terms of adequacy to measure risks the adequate were measured on excellence, adequate and inadequate.

5.4 Identification of Risk

The findings of the research found that risk identification is made by looking at people (employees), processes, systems, and internal and external environment. On the other hand, authors revealed that risk identification is done through strategy, activity or function as defined by the risk assessment context, looks at what is critical to success of that strategy, activity and considers what may go wrong(risk) (Risk Management Procedures, Transport Road & Maritime services.

From <http://www.rms.gov.au/doingbusinessmthus/pdf>. Retrieved on 06.04.2014

5.5 Risk Performance Measures,

According to the officers interviewed, they said they had no systems of measuring the risk performance measures. According to the findings of this study the above details are considered as the setback that should be looked at as one of the indicator on how the risk management performs in respect to the objective of the company.

In the findings we have seen the risk management and investment policies which are not seen in the literature reviews. These two policies have a greater role in making sure that the fund invested in businesses with high returns in order to attain the organization goal of paying benefits to its members.

Issues considered when establishing the risk context one business directions and increased demand for effective operational efficiency (for findings)

It seems these are the same as those in the literature review i.e. mission, stakeholders demand, vision objectives and issues of the same nature.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.0 Introduction

This chapter presents conclusion and recommendations of the study on the effectiveness of risk management methods in investment decision making. As it has been stated in the preliminary chapters, chapter six is considered to be the last chapter of this study and moreover it is expected that outcome of this study will contribute towards the ongoing reforms of pensions funds in Tanzania.

6.1 Conclusions

This study assessed the effectiveness of risk management methods in investment decision making. The main objectives of the study assess the effectiveness of the methods used in risks managements mainly in pension funds operations at the PPF headquarters.

The findings were expected to provide useful information that would stimulate new knowledge and insight, and review on the need to improve risk controls methods appropriately and timely. Related studies were reviewed for the purpose of providing the research with knowledge about the research problem as well as revealing gaps in the literature reviewed. The studies showed that effectiveness of the controls methods can't be mainly done quantitatively but rather qualitatively which gave more details or descriptions of various implementation processes.

Data were collected using interviews and documentary analysis; qualitative data obtained from interviews were subjected to content analysis and descriptive statistical test to explain the relationship between variables. The populations sample involve 46 respondents from different directorates namely, Procurement Department, Internal

Audit department, Risk Management Department, Directorate of Finance, Directorate of Planning, Investments and Projects and Directorate of Operations.

The major findings as per research questions as discussed in chapter five reflects that regarding the relationship between effective risks control methods needs the staffs from all above directorates to undergo on job trainings frequently to fully deal with risks whether in any symptomatic face or matured and determine appropriate strategies for controlling it to avoid adverse impacts of such risks to the organization. Also most ordinary employees from each directorate visited during the study were not knowledgeable about effectiveness of the control methods.

The findings generally reflected that effectiveness of risks controls methods was affected by how the risks is identified, their likelihood of occurrence, their potential consequences and their acceptability status and ultimately the smooth plan for its management.

On the basis of the findings above, conclusions drawn is as follows;

It is commonly agreed that for enhancing the effective risk controls methods there should be a joint or team work approach among the directorates to for timely actions against each identified risks for corrective measures.

6.2 Recommendation for Further Research

Based on the findings, the following area is suggested for further study.

- i. The research study was confined to the PPF headquarter only similar or related research studies could be conducted in other organizations conducting the same service for comparative purposes and enhancing collective efforts in making the practice known and acceptable for better work performance.
- ii. There is a need to conduct research that may lead to determination of controls methods and how are they being applied in day to day activities especially at the lowest levels of those organizations.

- iii. A study could also be carried out on the policy guiding the investment and how reviews of the policies is being done and determine the frequencies of such changes and therefore help the organization to improve the performance of every directorate and units to double the productivity.

REFERENCES

- Angelopoulos, P. and Maurokouta, P. (200), Banking Risk Management in a Globalizing Economy, West Point Connecticut London.
- Banks, E. (2003), Integrated Risk Management through Insurance, Reinsurance and the Capital Markets, John Willey and Sons Ltd.
- Brotherton, B. (1999). The Handbook of Contemporary Hospitality Management
- Carl M.N, & M, Brian. (2011) Effective Methods of Risk identification, 5th Ed. Chapman and Hall London.
- Clayton, D. (2011), "Pension Funds Risk Management Framework, Retrieved 11/03/2014, from the World Wide Web: <http://www.riskmanagement.org.nz>.
- Coulhy, M. Gidai, D. & Mark R. (2006). The Essentials of Risk Management: The definitive guide for Non risk professional, McGraw - Hills.
- Creswell, J. W (1994). Research Design, Qualitative and Quantitative Approaches, Thousand Oaks: California, Sage.
- Donm, C. and Brooks. R. (2002). An Introduction to Derivatives and Risk Management, South Joe, Sebastian Canada.
- Emmet J.V (1993). Fundamentals of risk management 3rd Ed. John Willey and Sons.
- Franzen, D, (2010) "Managing Investment Risk in Defined Benefits (DB) Pensions Funds" OECD working papers on Insurance and Private Pensions, NO. 38, OECD Publishing from World Wide Web: <http://www.riskmanagement.oecd.org/10.17188.pdf>.
- Franzer, D. (2010), "Making Investment Risk Management in Pension Funds" [OECD] working papers on Insurance and Private Pensions. OECD Publishing.
- Fundamentals of risk management (EWF) European Federation for Welding Joining and Cutting) working papers on risk management 2003
- Harrington S. E and Niheaus G. R (2003). Risk Management and Insurance, 2nd Ed. Tata McGraw – Hill Publishing Company Limited, New Delh.

- Hopkins, P. (2010) *Fundamental of Risk Management: Understanding, Evaluating and Implementing effective Risk Management*, Kogan Page London.
- Hudson, R. and Richardson, B. (1963). *Fundamentals of Enterprise Risk Management; An International Perspective*, 14th Ed. Chapman and Hall London.
- Insurance Commission of Western Australia (2011): *Risk Management Guidelines* 2ndEd. from World Wide Web: <http://www.statesecurity.tas.gov.au/riskmanagement.pdf>. Retrieved 06/04/2014
- Kemp, M.H.D and C.C (2011) “Entity Wide Risk Management for Pension Funds. A discussion paper from World Wide Web: <http://www.nematriam.com/Entity-wideriskmanagementforpensionfunds.aspx>.
- Kothari, C. R (2004), *Research Methodology*, 3rd Ed. New Delh, New Age International Publishers.
- Kothari, C.R (2003), *Research Methodology*, 2nd Ed. New Delh, Gupter for New Age international limited.
- Livingstone, P. B (1998). *The Remarkable stories of Risk* 5th Ed, John Willey and Sons, New York.
- Management of risk – principles and concepts (2004), HM Treasury
- Mehr, R. I and Hedges, AB (1993) *Risk Management in the Business Enterprise*, Richard, D. Irwin, Inc Homewood Illinois.
- Merna, T. and Al-Tham, F. (2008), *Corporate Risk Management* (2nd Ed), John Willey and Sons, West Sussex.
- Michael, F. Ulrich Hommel & Markus Rudolf (2012), *Risk Management: Challenges and Opportunities*, West Point Connecticut London.
- North Holland (2002), *corporate risk management costs and benefits*
- Osbone, A. (2013). *Risk Management Made Easy* McGraw-hill London.
- Paul, R. (1964), *Effective Project Management: Identify and Manage Risks, Plan and Budget*, John Willey and Sons New York.
- Ritchie, B. & Marshal, D. (1993), *Business Risk Management*, Chapman and Hall London.

- Risk management methods: Draft Guidance for infrastructure operators. Tasmanian counter terror review from World Wide Web: <http://ww.riskcover.wa.gov>. Retrieved on 08.04.2014
- Risk management procedures, transport Road & Maritime services from [www.http://www.rms.gov.au/doingbusinessinthus/pdf](http://www.rms.gov.au/doingbusinessinthus/pdf). Retrieved on 09.04.2014
- Risk Management Procedures, Transport Road & Maritime services. From. <http://www.rms.gov.au/doingbusinessinthus/pdf>. Retrieved on 06.04.2014
- Ross S. A, Westfield , RW & Jaff J. (2005). Risk Analysis, Real Options and Capital Budgeting, New York, McGraw – Hill Company.
- Sefi, S. and Crowther, D. (2008), Corporate Governance and Risk Management, Chapman and Hall London.
- Stewart F. (2010), “Pension funds Risk Management framework: Regulation and Supervisory Oversight”. [OECD (Organization for Economic Cooperation and Development)] working papers on Insurance and Private Pensions. OECD Publishing.
- Stewart, F. (2009). “Pension funds Risk Management framework: Regulation and Supervisory Oversight”. [OECD] working papers on Insurance and Private Pensions. OECD Publishing, from World Wide Web: <http://www.oecd.org/dataoecd/35/43/44633539>.
- Tim, L. (2012), “Principles for Pension Schemes Operational Risk Management, Retrieved on 04 March 2014, from the World Wide Web: <http://www.subscriber.riskbusiness.com>.
- Trieschman, J. S., Gustavson, S.G., & Hoyte, R.E. (2002), Risk Management and Insurance, 11th Ed, South West College.
- University of Canterbury, (2010) strategic risk management: from World Wide Web: <http://www.benthamsience.com/open/toime.pdf>. Retrieved on 09.04.2014

APPENDICES

APPENDIX 1:QUESTIONNAIRES

1. What is risk Management?

2. What are the major risks facing your organization?

3. What are the factors favoring risks occurrence in your organization

a) _____

b) _____

c) _____

d) _____

4. What are the main methods used in addressing the risks faced by your organization

a) _____

b) _____

c) _____

d) _____

e) _____

5. What criteria do you use to measure the effectiveness of the risks management process?

6 Mention the mechanisms used to identify the options for reducing the effects of the risks on projects of the organization

- a) _____
- b) _____
- c) _____
- d) _____

7 What are the issues considered by your organization in establishing the risk context?

8 Do your organization have an investment policy?

9 Does the methods of identifying risks work from top-bottom system OR bottom-top system? Why?

10 Which procedures your company employs in identification of risks?

11 How are the risks identified being assessed?

12 What are the existing controls used by your organization to reduce the consequence of risk?

13 What are the steps used to monitor or review the existing risk controls?

14 Do your organization have a risk management policy?

15 (a) Do your Organization have the system of risk ownership and decision?

(b) If YES what are the responsibilities of the risk owner?

16 (a) Do your organization have a system of risk management performance measurement?

(b) If YES, how does it work?
