

DEPARTMENT OF FINANCE, RISK MANAGEMENT AND BANKING

Fundamentals of Operational and Financial Risk

Only study guide for RSK2602

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PREFACE

1. Welcome

Dear Student

Welcome to the Fundamentals of Operational and Financial Risk module, which forms part of a Bachelor of Commerce degree at UNISA. We suggest that you refer back to this overview as often as you need to since this will certainly make studying this module easier.

The field of Risk Management is dynamic and challenging and the learning content and activities contained in this study guide will give you the opportunity to explore the latest developments in this field and help you to discover the field of Operational Risk Management as it is today. We hope that you will enjoy the module.

2. Overview of the module

Traditionally risk management was regarded as financial and insurance management, which were managed by the finance (treasury) department and a separate insurance management department. However, as many major incidents occurred on a global basis, operational risk exposures came to the fore and attracted the attention of various stakeholders.

The banking industry, for example, is one industry which suffered as a result of these risk events and during the 1990s major events resulting in large losses and even bankruptcy for some major banks, caused concerns for management. It, furthermore, drew the attention to risk management as a fundamental part of a bank's management process. As such the attention of various corporate bodies such as the Basel Committee on Banking Supervision was attracted. Along with major risk types such as credit and market risk, operational risk was also identified as a major issue to be addressed and managed.

It is important that the specific risk must be managed and controlled as close to the risk exposure as possible to enable management to effectively manage it. However, it became apparent that risk management required specific attention, which led to the establishment of a dedicated risk function within organisations with a specialist chief risk officer in charge with a permanent place on executive committees.

It is evident that risk management is vast becoming an essential part of an organisation's apparel. This study aims to provide students with a basic knowledge of operational risk management that could initiate a further interest in becoming a specialist in the field.

3. Purpose of the module

The purpose of this module is for students to become familiar with the concepts of Operational Risk Management and develop their understanding of the various challenges encountered in various industries.

4. Link to other courses/modules

This module does not stand alone, but is a qualifying module for the BCom degree. The purpose and the learning outcomes of this module are therefore aimed at developing your expertise and abilities at this knowledge level and standards.

5. Learning outcomes of this module

On completion of this module you should have and understanding of the pillars of risk controls is demonstrated by:

- Ability to identify and define risk management.
- Demonstrate an understanding of risk qualification and quantification.
- Demonstrate an understanding of the concept of operational risk.
- Demonstrate an understanding of the concept of financial risks
- Ability to identify the underlying operational risk factors in terms of internal and external factors.
- Ability to identify the underlying financial risk factors for market and credit risk.
- Demonstrate an understanding of the key principles to manage risks.
- Ability to identify and define the concept of capital adequacy and capital allocation.
- Demonstrate an understanding of the difference between regulatory and economic capital.
- Demonstrate an understanding of calculating a realistic capital allocation to risks.
- Demonstrate an understanding of the Basel Capital Accord for risk management.

6. Composition of the study

The composition of the learning material will consist of a study guide and various tutorial letters that will guide you through the module. The tutorial letters will also be available online.

7. Effective learning and prescribed books

Operational risk management may be a totally new area of study for students not having had any previous exposure to this field of study. These students, especially, might have to spend a fair amount of time working through the study material before fully understanding all the topics covered. It is important to test whether you understand the ideas presented in each study unit, since each study unit contains important knowledge that forms the basis for the following study units.

7.1 Suggestions on how to approach your studies

Tutorial Letter 101 and the study guide will direct you on how to approach the learning and all other resources and explain how you can use these to your benefit.

In the study guide we make a definite distinction between the parts of the prescribed book you have to read and those you have to study.

- **Studying**

The sections that have to be studied are clearly indicated and form the basis of assignments and examinations. You need to understand the content of these sections in the study guide and the prescribed books to be able to do the activities and assignments, to achieve the learning outcomes and to pass the examination. In order to understand the learning material, you must firstly, accept responsibility for your own studies. Secondly, learning is not the same as memorising. You will be expected to understand and apply the information, not just remember it.

- **Reading**

In some parts of the study guide you will be required to read a certain section in the prescribed book or the study guide. This means that you should take note of these sections, either because they contain useful background information or because they offer another perspective on the study material or because they give further examples. These sections will

give you some context, help you to make notes and generally improve your understanding of the topic.

You are encouraged to follow a schedule and allocate your time for studying the various topics, learning units and doing the activities listed in Tutorial Letter 101. At this level it is required that you extend your research wider than only the prescribed books and study guide. As such you are encouraged to research the various topics and latest developments in the field of operational risk management by using the library, internet and various other sources of information. You should question the ideas and information that you come across. To test your understanding of the ideas that you learn about in this module, you should try to apply them to real situations.

This study guide is based on the following prescribed book:

Young, J. 2006. *Operational Risk Management: The practical application of a qualitative approach*. Pretoria Van Schaik Publishers (ISBN 0-627-02622-2).

Recommended reading:

1. Valsamakis, A.C., Vivian, R.W. & Du Toit, G.S. Fourth Edition 2010. *Risk Management* Heinemann (ISBN 97807962311185).
2. Basel Committee on Banking Supervision. 2006. *International Convergence of Capital Measurement and Capital Standards*. Bank for International Settlements. (www.bis.org).

7.2 Importance of completing activities, assignments and self-assessment questions

7.2.1 Activities

You will come across various types of activities in this study guide:

- Reflecting on work covered.
- Assessment questions.
- Self-evaluation.

Please note that we consider the completion of the activities in the study guide and the assignments as crucial to the successful completion of this module. Firstly, the activities in the

study guide will provide you with the basic approach of the study unit and secondly, they indicate which chapters in the prescribed book need to be studied.

7.2.2 Assignments

Assignments for this module will be provided in Tutorial Letter 101. To achieve the learning outcomes, you must complete the assignments. Completing the assignments will enable you to develop a feel for the type of questions you can expect in the examination and will give you first-hand feedback from the lecturer. The assignment questions also provide you with the opportunity to apply the theory to a case study or a practical situation in your own workplace. You will be informed of the purpose of each assignment and which module outcomes will be assessed by the assignment.

Details of the assignments with their associated assessment criteria and the format and requirements of the examination are provided in Tutorial Letter 101.

7.2.3 Assessment questions

At the end of each section you will find a list of possible assessment questions based on the work done in that section. We advise you to work through these questions diligently, since they are an extremely useful opportunity to prepare for possible examination questions. Self-assessment plays a very important role in the mastering of learning outcomes and you should therefore also complete the self-assessment activities in the study guide or myUnisa. **The self assessments with suggested solutions, where appropriate, will also be posted on myUnisa. The suggested solutions will only be available once you have completed the self assessment on myUnisa.**

You will find most of the answers to these questions in the study material covered in the study guide and prescribed books. We do not believe that the examination should contain "surprises". It is therefore in your own interests to work through these assessment questions.

7.2.4 Assessment of the module

You will be assessed on your assignments during the year with an examination as the final assessment. The assessment is done according to transparent assessment criteria that link directly to the module outcomes.

The compulsory assignment mark(s) will count, with your final assessment, towards your total mark. The year mark contributes 10% and the examination 90% (with a sub-minimum of 40%) towards the final mark. The sub-minimum means that the year mark will not be taken into account if the examination mark is less than 40%. It is therefore possible that a student can fail the paper due to low year mark.

ASSESSMENT	CONTRIBUTION TOWARDS FINAL MARK	SCENARIO 1		SCENARIO 2	
		MARK	YEAR MARK	MARK	YEAR MARK
Assignment 1	5%	30%	1.5%	75%	3.8%
Assignment 2	5%	-	-	80%	4.0%
Examination	90%	50%	45%	48%	43.2%
	100%	Fail	46.5%	Pass	50.1%

Students have underestimated the amount of work required for the assignments and the examination in general. A key focus area of the module is to be able to apply the theoretical knowledge in case studies, which require insight into the discipline. We therefore recommend very strongly that you read wider than only the prescribed book.

A quick scan of the study material before an assignment or the examination is unfortunately not going to help you to pass the examination. Give yourself sufficient time to master the theory and reflect on the topic.

The mistakes that caused students to lose marks in the assignments and examination can be summarised as follows:

Students did not read the questions properly, nor analysed what was expected, which resulted in giving the wrong answer or only a part of the correct answer.

Students repeated the same point.

An essay question of 20 marks requires more points/comments than a question counting five marks. Students did not use the marks as a guideline – you cannot earn more than the marks allocated to the question however, writing down five points in a 20 mark question is most probably not going to earn you more than five points.

In general, essay questions were not well structured. Use a proper structure to enable an independent reader to follow your argument. Use headings and subheadings in your answer. If there are sub-questions, number your answers accordingly or if you are required to compare, or contrast items it may be easier and neater to construct a table.

Students were penalised for not referencing their sources in assignments.








Students did not verify internet sources/information – it is recommended to use the UNISA Library, the library of another university or a corporate library for research. Although there are a number of websites that may give definitions discussions on relevant topics, information may be dated or is sometimes not correct.


Although students may work together when preparing assignments, each student must write and submit his or her own individual assignment. In other words, you must submit your own ideas in your own words, sometimes interspersing relevant short quotations that are properly referenced. It is unacceptable for students to submit identical assignments on the basis that they worked together. That is copying (a form of PLAGIARISM) and **NONE** of these assignments will be marked. Furthermore, you may be penalised or subjected to disciplinary proceedings by the University.

Further details of the assessment and examination requirements of this module are provided in Tutorial Letter 101.

8. Use of icons

The icons and the meaning of each are explained below:

	<p>Learning outcomes and Assessment Criteria. The aspects of a particular topic or study unit you have to master (i.e., know and understand) and will be tested on in the examination to demonstrate competence.</p>
	<p>Key concepts. Attention is drawn to certain keywords or concepts that you will come across in the topic or study unit.</p>
	<p>Overview. The overview provides the background to a particular topic or study unit.</p>
	<p>Activity and Feedback. These self-assessment activities should be performed in order to develop a deeper understanding of the learning material. Feedback is provided on the self-assessment activities.</p>
	<p>Study. The Study icon indicates which sections of the prescribed book you need to study (i.e., learn, understand and practice).</p>
	<p>Assessment. When you see the Assessment icon you will be required to test your knowledge, understanding, and application of the material you have just studied.</p>
	<p>Summary. This section provides a brief summary of what was covered in a particular study unit and what can be expected in the following study unit(s).</p>

	<p>Checklist. After completion of a particular study unit, you should confirm that all learning outcomes where in fact achieved and that you comply with the assessment criteria.</p>
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9. What you can expect from UNISA

You can expect us to do the following:

- Provide you with up-to-date and relevant learning material, which is regularly compared and benchmarked against similar local and international programmes.
- Keep the learning material in line with the needs of industry and commerce by consulting regularly with the profession, industry leaders and government officials.
- Help you to develop competencies and skills at a certain level. The outcomes correspond to the National Qualifications Framework (NQF) level 6. You will be assessed in the light of the level descriptors of the NQF's level.
- Give you support whenever you need it. You may contact your lecturers by making personal appointments; or you can contact them by phone or via email or via the Internet. We understand that studying through distance education is more challenging than attending a residential university.
- Provide you with clear indications of what we expect from you in terms of your assessment.
- Give you timeous feedback on assignments. We will return an assignment to you within three weeks after the due date if you submitted the assignment before the due date.
- Present an annual discussion class at various main centres depending on the geographical distribution of the students.

10. Conclusion

Enjoy your studies and we are certainly looking forward to being your partner during this period.

Best wishes

**LECTURERS IN FUNDAMENTALS OF OPERATIONAL AND FINANCIAL RISK
MANAGEMENT**

TOPIC 1: INTRODUCTION TO RISK MANAGEMENT

AIM

Students must be able to:

- critically evaluate the background of risk management
- evaluate the basic functions that could relate to modern risk management
- evaluate the drivers for a focussed approach to risk management



LEARNING OUTCOMES

At the end of this topic, the student will be able to:

- Define operational risk
- Define enterprise risk management
- Analyse and discuss the interrelationships between different risk types
- Analyse and discuss the cause and effect relationship
- Evaluate and discuss the operational risk management framework

TOPIC CONTENT

Study Unit 1: Introduction to risk management

Study Unit 2: Operational risk management framework

Study Unit 3: Development of an operational risk management function



OVERVIEW

The 1st topic gives a brief introduction and overview of operational risk management. The topic will form the basis for the rest of the course. It is also important to pay attention to the case studies included in the study units as it gives a good background on real life experiences and provides insight in what can go wrong and how companies mismanaged, managed and prevented incidents.

STUDY UNIT 1: INTRODUCTION TO RISK MANAGEMENT

CONTENTS

Aim

Key concepts

Learning outcomes

Learning material

Assessment

Summary

AIM

The aim of this study unit is to provide students with an overview of risk, risk types and operational risk.



KEY CONCEPTS

Operational risk

Sub-categories of operational risk

Enterprise risk

Operational risk management framework



LEARNING OUTCOMES

At the end of the study unit the student will be able to:

- describe and discuss the background of risk management
- evaluate the drivers for a focussed approach to risk management
- analyse incidents to identify operational risks
- evaluate the contribution of governance frameworks to risk management

LEARNING MATERIAL

1.1. The prescribed learning material

This study unit is based on Chapter 1 of the prescribed book.

1.2. What is risk?

People and organisations have been exposed to risk since the earliest times. From the caveman who might have been killed or injured on a hunt, to big corporations which experienced significant losses due to fraud, business interruptions or the loss of life and financial losses of communities due to natural disasters.

The following are examples of recent or important natural and business disasters:

- South Africa experienced floods in January 2011, which claimed more than 100 lives, estimated damage to infrastructure upwards of R100bn. Australia also experienced floods in 2011, and it had a devastating impact on infrastructure and claimed a number of lives.
- An earthquake measuring 7 on the Richter scale on 12 January 2010 struck Haiti. An estimated number of 220 000 people lost their lives and more than a million was left homeless. The quake also destroyed or severely damaged numerous hospitals, schools, homes and buildings. Earthquakes, which caused severe damage to infrastructure and loss of life, also struck Christchurch, New Zealand, in September 2010 and February 2011.
- Rogue trading led to the demise of Barings Bank in 1995.
- In 2008, Société Générale incurred a €4.5 loss due to a rogue trader.
- A number of denial of service (DoS) attacks were launched by supporters of WikiLeaks on websites owned by MasterCard, PayPal amongst others in sympathy after the arrest of Julius Assange, MasterCard, PayPal and other service providers cut their ties with WikiLeaks after the publishing of sensitive government records.

Cost of risk is increasing – not only because of the direct result of the event, but also the cost to repair the damage and to make up the lost market share or gross domestic income. Funds that could have been used to improve a business process or develop and grow market share, are now tied up in the recovery process. Organisations and regulators are therefore emphasising the pro-active management of risk to prevent events or disasters where possible, but also to limit the damage once it occurs.

1.3. Key drivers that expose organisations to more risk

The risk exposure of organisations has increased due to a number of factors:

- **Globalisation:**

For the purpose of this course, globalisation is regarded as the continuous integration of economic, financial, trade and communications amongst countries and different regions. Countries are in effect forced to move away from a narrow, nationalistic to broader view to facilitate trade. Examples are the alignment of accounting standards and banking regulations to that of international bodies. Organisations should consider the following from a risk management perspective:

- A crisis in one country can lead to crises in other countries as was demonstrated with the credit crisis that started mid-2007.
- Competitors are not limited to the local town, province or country, but is anybody selling or supplying similar services or products, irrespective of their location. Examples are Amazon that is able to compete with a local bookshop via the internet, or a software vendor that enable customers to download software directly from its website via the internet.
- Potential fraudsters can launch a cyber attack on a local organisation while residing in a different jurisdiction.
- The USA has introduced legislation against terrorist activities and anti-terrorist financing. It outlaws the laundering (in the US) any of the proceeds from foreign crimes of violence or political corruption and prohibits laundering the proceeds from cybercrime or supporting terrorist activities.

- **Organisations are becoming more complex.**

- Although the head office of the organisation may be located in South Africa, with regional offices or branches spread across the globe, each jurisdiction will have its own rules, regulations and practices, which differ from what the holding company deals with in South Africa.
- Organisations place a significant reliance on computer technology. The system architecture design and IT operations are complex and in general a long term process, which can make it difficult for organisations to change direction due to technological challenges and cost factors.

- **The regulatory environment is becoming more vigilant and onerous.**
 - Governments are promulgating more laws and regulations for example protect the environment and consumer rights.
 - Closely regulated industries such as the banks and insurance companies are required to have required levels of capital.
- **Focus on governance.**
 - There are a number of spectacular company failures such as Barings Bank, Enron, WorldCom, MasterBond, Saambou and Lehman Brothers to name a few.
 - Other stakeholders are also demanding more from organisations with regard to governance and transparency. Countries across the world have implemented codes of governance. Organisations in South Africa are encouraged to implement the King III Code on Governance.
- **Consumer demands.**

Consumers are becoming more sophisticated and therefore demand products and services of higher quality. Consumer rights are also protected by the Consumer Protection Act, No. 68 of 2008, which came into effect in April 2011.



Study the following sections in chapter 1 of the prescribed book:

- **Risk types and definitions**
- **Defining operational risk**
- **Underlying operational risk factors**
- **Global focus on operational risk**

1.4. The regulatory environment

1.4.1. Basel Committee on Banking Supervision

Principles for enhancing corporate governance

Banks play an important financial intermediary role in the South African economy. The public and the market are quite sensitive to any potential bank failures or other difficulties that may arise from deficiencies in the corporate governance of banks. Recent

examples in the South African context are Regal Bank, Saambou Bank and Fidentia Asset Management.

One of the initiatives of the Basel Committee on Banking Supervision (BCBS) is to promote sound corporate governance principles in banks. The Committee has published a number of guidance documents on the subject. The latest publication, released in October 2010, includes lessons learned from the financial crisis that started in mid-2007.

The Committee identified the following focus areas in the latest publication:

- **Board practices**

The board should actively carry out its overall responsibility for the bank, including its business and risk strategy, organisation, financial soundness and governance. The board should also provide effective oversight of senior management.

To fulfil this responsibility, the board should:

- exercise sound objective judgment and have and maintain appropriate qualifications and competence, individually and collectively
- follow good governance practices for its own work as a board
- be supported by competent, robust and independent risk and control functions, for which the board provides effective oversight.

- **Senior management**

Under the direction of the board, senior management should ensure that the bank's activities are consistent with the business strategy, risk tolerance/appetite and policies approved by the board.

- **Risk management and internal controls**

- A bank should have a risk management function (including a chief risk officer (CRO) or equivalent for large banks and internationally active banks), a compliance function and an internal audit function, each with sufficient authority, stature, independence, resources and access to the board.
- Risks should be identified, assessed and monitored on an ongoing firm-wide and individual entity basis.
- An internal controls system, which is effective in design and operation should be in place.

- The sophistication of a bank's risk management, compliance and internal control infrastructures should keep pace with any changes to its risk profile (including its growth) and to the external risk landscape.
- Effective risk management requires frank and timely internal communication within the bank about risk, both across the organisation and through reporting to the board and senior management.
- **Compensation**

The bank should fully implement the Financial Stability Board's (FSB - formerly the Financial Stability Forum) *Principles for Sound Compensation Practices* (FSB Principles) and accompanying *Implementation Standards* (FSB Standards) or the applicable national provisions that are consistent with the FSB Principles and Standards.
- **Complex or opaque corporate structures**

The board and senior management should know, understand and guide the bank's overall corporate structure and its evolution, ensuring that the structure (and the entities that form the structure) is justified and does not involve undue or inappropriate complexity.

Senior management, and the board as appropriate, should understand the purpose of any structures that impede transparency, be aware of the special risks that such structures may pose and seek to mitigate the risks identified.
- **Disclosure and transparency**

Transparency is one tool to help emphasise and implement the main principles for good corporate governance.

The South African Framework

The South African Companies Act

Governance in companies in South Africa is also a legal requirement as per the Companies Act, 71 of 2008. The Act came into effect in May 2011. Relevant components of the act will be discussed below.

Purpose of the act is to:

- promote compliance with the Bill of Rights as provided for in the Constitution, in the application of company law
- promote the development of the South African economy by:
 - encouraging entrepreneurship and enterprise efficiency
 - creating flexibility and simplicity in the formation and maintenance of companies
 - encouraging transparency and high standards of corporate governance as appropriate, given the significant role of enterprises within the social and economic life of the nation
- promote innovation and investment in the South African markets
- reaffirm the concept of the company as a means of achieving economic and social benefits
- continue to provide for the creation and use of companies, in a manner that enhances the economic welfare of South Africa as a partner within the global economy
- promote the development of companies within all sectors of the economy, and encourage active participation in economic organisation, management and productivity
- create optimum conditions for the aggregation of capital for productive purposes, and for the investment of that capital in enterprises and the spreading of economic risk
- provide for the formation, operation and accountability of non-profit companies in a manner designed to promote, support and enhance the capacity of such companies to perform their functions
- balance the rights and obligations of shareholders and directors within companies
- encourage the efficient and responsible management of companies
- provide for the efficient rescue and recovery of financially distressed companies, in a manner that balances the rights and interests of all relevant stakeholders
- provide a predictable and effective environment for the efficient regulation of companies.

Board of directors

The Act provides for the business and affairs of a company to be managed by, or under, the direction of a board of directors. The board has the authority to perform any of the functions of the company except to the extent that the Companies Act or Memorandum of Incorporation provides otherwise.

A private company or personal liability company requires at least one director, whilst a public company or a non-profit company requires at least three directors. The minimum numbers of directors may be increased in a company's Memorandum of Incorporation.

The Memorandum of Incorporation may also provide for:

- the direct appointment or removal of one or more directors by any person who is named in, or determined, in terms of the Memorandum of Incorporation
- a person to be an ex officio director as a consequence of holding an office, title, designation or similar status
- the appointment or election of alternate directors
- Shareholders of profit companies (other than state-owned entities) to elect at least 50% of directors and at least 50% of any alternate directors.

Board committees

The board of a company may establish any number of committees and delegate to such committees any function of the board. Unless the Memorandum of Incorporation, or a resolution establishing a committee, provides otherwise, the committee may include persons who are not directors of the company, but such persons are not entitled to vote on a matter to be decided by the committee.

The board committees may consult with or receive advice from any person and has the full authority of the board in respect of a matter referred to it.

The number board committees will depend on the complexity and industry of the company. Banks for example, can have a credit committee, operational risk committee and an audit committee. Smaller companies can manage the situation differently by including the risk functions as part of the audit committee or the main board.

Audit committees

A public company, state-owned enterprise or other company that has voluntarily determined to have an audit committee must elect an audit committee at each annual meeting.

The audit committee must have at least three members unless the company is a subsidiary of another company that has an audit committee that will perform the audit committee functions on behalf of that subsidiary.

Each member of the audit committee must be a director of the company. A member of the audit committee must not be:

- involved in the day-to-day management of the company, or have been so involved at any time during the previous three financial years
- a prescribed officer or full-time executive employee of the company, or have been such at any time during the previous three financial years
- a material supplier or customer of the company, such that a reasonable and informed third party would conclude in the circumstances that the integrity, impartiality or objectivity of that director is compromised in that relationship
- related to any person described above.

The duties of the audit committee include:

- nominating an auditor that the audit committee regards as independent
- determining the audit fee
- ensuring that the appointment of the auditor complies with the Companies Act and other relevant legislation
- determining the nature and extend of non-audit services
- pre-approving any proposed agreement with the auditor for the provision of non-audit services
- preparing a report to be included in the annual financial statements describing how the committee carried out its functions, stating whether the auditor was independent, and commenting on the financial statements, accounting practices and internal financial control measures of the company
- receiving and dealing with relevant complaints

- making submissions to the board regarding the company's accounting policies, financial controls, records and reporting, and
- any other function designated by the board.

The Act requires the audit committee to prepare a report for inclusion in the financial statements describing how the audit committee carried out its functions, stating its level of satisfaction with the independence of the external auditor and providing comment on the financial statements, accounting practices and internal controls of the company. The ambit of the audit committee also extends to the receipt and dealing with of any complaints around the accounting practices and internal audit of the company, content or auditing of the company's financial statements, internal financial controls of the company, or any other related matter.

The board may also delegate further functions to the audit committee, including the development and implementation of a policy and plan for a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes within the company.

1.4.2. Corporate Governance

Introduction

Effective corporate governance practices are essential to achieve and maintain public trust and confidence, which are critical to the proper functioning of the economy as a whole. Poor corporate governance may contribute to organisational failures, which can pose significant public costs and consequences due to their potential impact on the broader macroeconomic implications.

There are a number of definitions for corporate governance. The UK Cadbury Commission Report on Corporate Governance, 1992, gives the following definition: "Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability of the stewardship of these resources. The aim is to align as nearly as possible the interests of individuals, corporations and society."

The OECD Principles of Corporate Governance states: "**Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.**"

For the purpose of this course, the following definition will be used:

Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability of the stewardship of these resources. The aim is to align as nearly as possible the interests of individuals, corporations and society.

It is clear from the above definitions that corporate governance is the practice by which organisations are managed and controlled.

The process includes:

- The creation and ongoing monitoring of a system of checks and balances to ensure a balanced exercise of power within the organisation.
- The implementation of a system to ensure compliance with its legal and regulatory obligations.
- The implementation of processes whereby risks to the sustainability of an organisation's business are identified and agreed within agreed parameters.
- The development of practices which make and keep the company accountable to the broader society in which it operates.

The South African Framework

Introduction

Corporate governance in South Africa was institutionalised by the publication of the King Report on Corporate Governance in 1994. The King Committee on Corporate

Governance was formed in 1992 under the auspices of the Institute of Directors, to consider corporate governance of increasing interest around the world, in the context of South Africa. The purpose of the King Report 1994 was to promote the highest standards of corporate governance in South Africa.

The King Report was updated in 2001 and a third report was published in 2009. The third report on corporate governance in South Africa was necessitated by the new Companies Act and changes in international governance trends.

Extracts of the code that is relevant to this course and will be discussed below are the governance of risk, the audit committee, compliance with laws and internal audit.

Governance of risk

- The board's responsibility for risk governance
 - The board should be responsible for the governance of risk
 - The board should determine the levels of risk tolerance
 - The risk committee or audit committee should assist the board in carrying out its risk responsibilities
- The board should delegate to management the responsibility to design, implement and monitor the risk management plan
- Risk assessment
 - The board should ensure that risk assessments are performed on a continual basis
 - The board should ensure that frameworks and methodologies are implemented to increase the probability of anticipating unpredictable risks
- The board should ensure that management considers and implements appropriate risk responses
- The board should ensure continual risk monitoring by management
- The board should receive assurance regarding the effectiveness of the risk management process
- The board should ensure that there are processes in place enabling complete, timely, relevant, accurate and accessible risk disclosure to stakeholders.

Audit committees

- The board should ensure that the company has an effective and independent audit committee.
- Membership and resources of the audit committee
 - Audit committee members should be suitably skilled and experienced independent non-executive directors
 - The audit committee should be chaired by an independent non-executive director
- Responsibilities of the audit committee
 - The audit committee should oversee integrated reporting
 - The audit committee should ensure that a combined assurance model is applied to provide a coordinated approach to all assurance activities
- Internal assurance providers
 - The audit committee should satisfy itself of the expertise, resources and experience of the company's finance function
 - The audit committee should be responsible for overseeing of internal audit
 - The audit committee should be an integral component of the risk management process
- The audit committee is responsible for recommending the appointment of the external auditor and overseeing the external audit process
- The audit committee should report to the board and shareholders on how it has discharged its duties

Compliance with laws, rules, codes and standards

- The board should ensure that the company complies with applicable laws and considers adherence to nonbinding rules, codes and standards
- The board and each individual director should have a working understanding of the effect of the applicable laws, rules, codes and standards on the company and its business
- Compliance risk should form an integral part of the company's risk management process
- The board should delegate to management the implementation of an effective compliance framework and processes

Internal Audit

- The board should ensure that there is an effective risk based internal audit
- Internal audit should follow a risk based approach to its plan
- Internal audit should provide a written assessment of the effectiveness of the company's system of internal controls and risk management
- The audit committee should be responsible for overseeing internal audit
- Internal audit should be strategically positioned to achieve its objectives



ASSESSMENT

1. List and discuss the key drivers that increased the risk profiles of organisations.
2. Discuss the risk management roles and responsibilities of the board of directors.



SUMMARY

This study unit introduced risk, risk types and operational risk. The definitions of the different risks are important to enable management to classify the risk, but also to have a proper understanding of the scope and causes of the risks.

Governance sets the tone for the management of risks in the organisation. Good governance is becoming more relevant in investment decisions and the engagement with existing and new trading partners.

There was expectancy after the Enron and WorldCom debacles that corporate governance and risk management were well established in especially banks. The annual reports of companies have large section on governance and risk management, which creates the impression that governance is well establish and risk management practices are on par. The regulators also appeared to be more vigilant in their approach. Unfortunately, when the financial markets started to experience stress, the cracks in governance, risk management and supervision became very visible.

The important of governance must however not be underestimated. Many companies have robust structures and processes in place, with good independent directors and a strong board. Another positive development is the pressure shareholders and asset managers are starting to put on boards to toe the line.

The operational risk management framework will be discussed in the next study unit.

STUDY UNIT 2: OPERATIONAL RISK MANAGEMENT FRAMEWORK

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Aim

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Summary

AIM

The aim of this study unit is to provide students with an overview of the operational risk management framework.



KEY CONCEPTS

Integrated approach to risk management

Operational risk management framework

Risk appetite

Operational risk management process



LEARNING OUTCOMES

At the end of the study unit the student will be able to:

- discuss the aims and objectives of an operational risk management framework
- discuss an integrated approach to risk management in terms of organisational effectiveness and risk performance
- discuss the organisational effectiveness of risk management
- discuss the main components of an operational risk management framework

LEARNING MATERIAL

2.1. The prescribed learning material

This study unit is based on Chapter 2 of the prescribed book.

2.2. Introduction

The aims of a risk management framework are to identify and establish a structured approach to the management of risk. The effectiveness of risk management is increased with the understanding of the potential risks involved with the implementation of a new strategy when that strategy is formulated. This principle also applies with the design and implementation of new systems and processes.

It is a regulatory requirement in banks that the risk functions should be independent from the line management activities. Businesses however, need to keep a fine balance between the independence of their risk function and the risk management function being experienced as being out of touch with business.

The remuneration of executives and especially performance bonuses is a very sensitive topic after the last financial crisis. Governments among others have voiced their concerns that executives still award themselves large bonuses after their organisations had to be rescued by governments.

The implementation of the operational risk management framework is important to ensure that the benefits of having an effective risk management function in the organisation.



Study the following sections in chapter 2 of the prescribed book:

- **Introduction**
- **Integrated approach to risk management**
- **Operational risk management framework**



ASSESSMENT

1. List the goals of an operational risk management framework.
2. Discuss the strategic management process for operational risk management.
3. Draw and discuss the operational risk management process.
4. Define what you understand by an operational risk management framework.



SUMMARY

This study unit introduced the operational risk management framework. The implementation and embedding of a risk management framework can add significant value to the organisation to manage both current and future risks.

An important part of the implementation of a risk management framework is to have an effective risk management function. The next study unit will discuss the development of an operational risk management function.

STUDY UNIT 3: DEVELOPMENT OF AN OPERATIONAL RISK MANAGEMENT FUNCTION

CONTENTS

Aim

Key concepts

Learning outcomes

Learning material

Assessment

Summary

AIM

The aim of this study unit is to provide students with an overview of the process that can be followed to develop an operational risk management function.



KEY CONCEPTS

Bottom-up approach

Top-down approach

Operational risk management function



LEARNING OUTCOMES

At the end of the study unit the student will be able to:

- List and discuss the steps to establish an operational risk management function.
- Compare the top-down and bottom-up approaches to risk management

LEARNING MATERIAL

2.1. The prescribed learning material

This study unit is based on Chapter 3 of the prescribed book.

2.2. Introduction

The establishment of the operational risk management is of critical importance for the successful implementation of operational risk. The function must be supported by senior management, as the operational risk management function will be responsible instil a risk management culture, which implies that they also need to be change agents. Members of the operational risk management function not only need a good understanding of the business environment, but need to have good risk management skills.

Read the “Introduction” section in chapter 3 of the prescribed book.



Study the following sections in chapter 3 of the prescribed book:

- **Approaches to the establishment of an operational risk management function**
- **Steps in the establishment of an operational risk management function**



ASSESSMENT

1. List and discuss the steps to establish an operational risk management function.
2. Compare the top-down and bottom-up approaches to risk management.



SUMMARY

The establishment of the operational risk management function was covered in this study unit. The different approaches to establish an operational risk management function and the steps that can be followed were discussed.

The risk management process will be discussed in the next topic.

TOPIC 2: THE RISK MANAGEMENT PROCESS

AIM

The aim of the 2nd topic is to discuss the risk management process. The topic will focus on the process followed to identify and evaluate operational risk, the design of controls, finance of risks and the monitoring of operational risk on an ongoing basis.



LEARNING OUTCOMES

After studying this topic, the student will be able to:

- identify and assess operational risks in the organisation
- identify and evaluate the control strategies to manage operational risk
- identify and evaluate operational risk financing strategies
- evaluate the monitoring of operational risk to line and executive management and the board

TOPIC CONTENT

Study unit 4: Risk identification

Study unit 5: Risk evaluation

Study unit 6: Risk control

Study unit 7: Risk financing

Study unit 8: Risk monitoring



OVERVIEW

The diagram below depicts the risk management process, which demonstrates that risk management is an integrated and reiterative process.

Each step in the process is important as the previous step provides the input for the next. The risk manager may therefore experience difficulties if she had a budget approved to finance risk management initiatives and it transpires that she did not identify all the risks.

Risk management is also a continuous process as the macro environment and internal environment in which the organisation operates is dynamic and change constantly. It is therefore important that the risk management team should have a good understanding of the organisation and the environment in which it operates.

The definition of risks is also important. In practice, risks are often defined as negative controls e.g. "reconciliations are not performed" or stating the business processes in the negative. This makes it difficult to have a proper understanding of the cause of the risk and quite often an organisation ends up with a risk register and risk profile that is not used to its full potential. The risk manager and line management use the risk register as basis to evaluate their controls and if the risks and causes are not properly defined, the control statements become meaningless.

The risk manager and management will evaluate the identified risks to determine the appropriate risk strategy, which can range from the avoidance of the risk, to acceptance. The underlying principle is however that the organisation will have to finance the management of its risks. This can take on different forms by either by instituting management controls i.e. the implementation of procedures and supervisors/checking officials to ensure that clerks are following the procedures, or to the other extreme where the organisation will by insurance as protection against risks with a low probability but with high impact.

The organisation also needs to monitor risks continuously. Supervisors will review work e.g. preparation of payments before effecting the payment. Line management will use daily reports to perform their tasks and take corrective action where necessary. The risk manager will prepare monthly reports for senior management to review and quarterly reports for the board of directors, or sub-committees of the board such as the Risk Committee. It is clear to see that the supervisors and managers need frequent information and reports i.e. intra-day and daily to take immediate corrective action and senior management less frequent information to interpret trends and follow a more strategic approach.

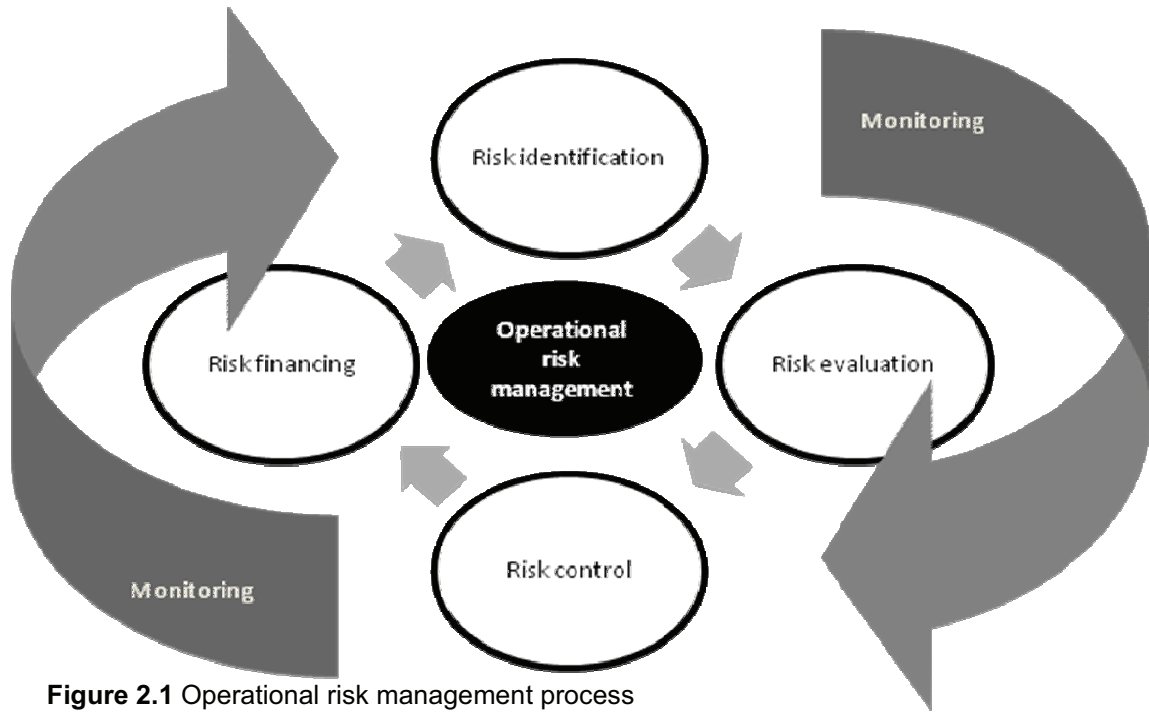


Figure 2.1 Operational risk management process

Young (2006: 33)

STUDY UNIT 4: RISK IDENTIFICATION

CONTENTS

Aim

Key concepts

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Learning material

Assessment

Summary

AIM

The aim of this topic is to provide students with a clear understanding of risk identification as an element of the operational risk management process.



KEY CONCEPTS

Inherent risk

Residual risk

Risk register

Controls



LEARNING OUTCOMES

At the end of the study unit the student will be able to:

- describe and discuss risk identification as an element of the operational risk management process
- describe and discuss the methods and processes used to identify operational risk

LEARNING MATERIAL

4.1. The prescribed learning material

This study unit is based on Chapter 4 of the prescribed book.

4.2. Introduction

Risk identification is the 1st step in the operational risk management process. Risks can be identified by using a formal risk assessment approach or by events, whether currently being experienced or historical. The benefits of using a formalised approach are that the organisation is:

- embedding a risk management culture in the organisation by standardising the approach, terminology and processes
- becoming more pro-active by identifying and defining not only the historical events, but also potential risks and therefore implement controls before the event materialise
- gaining a better understanding of the risks in the organisation

4.3. Sources of risks

The risks manager can use a number of sources to identify risks. Sources internal to the organisation are:

- Loss registers/database
- Frauds (internal and external)
- Income and expense accounts
- System descriptions
- Internal audit reports
- Internal subject matter experts

External sources can be:

- Industry trends: A number of consultants do research on emerging trends or trends and present at conferences, publish it in journals to subscribers or are commissioned by organisations to assess and benchmark their risks.

- Incidents at a local or international competitor: An example is the incident at Soc Gen, where a trader was able to circumvent controls, which cost the bank €4.9bn (Financial Times). The executive management teams of a number of banks instructed their risk departments to perform an analysis and report on the exposure of their banks to similar risks.
- Changes in legislation and regulations such as the Companies Act, Occupational Health and Safety Act may require the organisation to assess or review current risks.
- External audits may highlight risks and control weaknesses.
- On-site reviews by regulators such as the Banking Supervision Department of the South African Reserve Bank for banks and Financial Services Board for insurance companies and pension fund administrators.

It is important to plan the process before commencing with the risk identification exercise, irrespective of the method that you plan to use. Participants are normally under pressure and they may be less inclined to give it their full attention if the workshop/questionnaire was not properly planned and prepared, especially with a limited exposure to operational risk and the process.

4.4. Cause and effect

It is important from an operational risk management perspective to understand the causes of an event and the consequences thereof. Quite often more than one cause is responsible for an event and more than one event for a disaster. Refer to Figure 4.1.

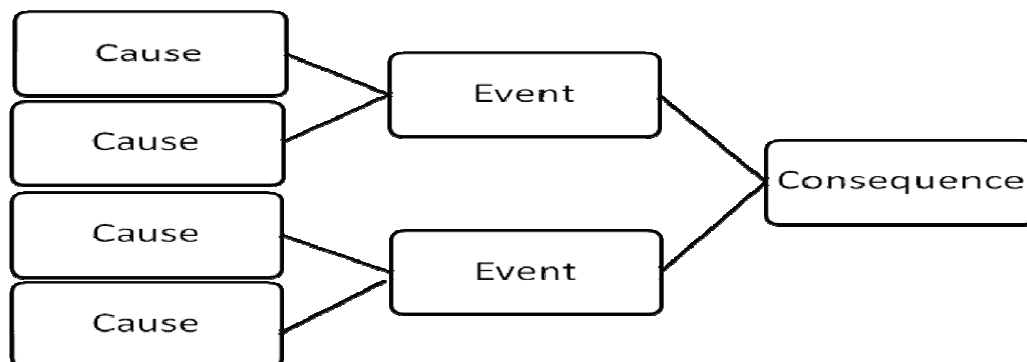


Figure 4.1: The cause, event and consequence chain

Doctoring the symptoms of a problem is not going to resolve it in the long run and most possibly, the consequences at that stage will be more severe.



Study the following sections in chapter 4 of the prescribed book:

- **Concept of operational risk identification**
- **Methods of risk identification**
- **Sources that can be used to identify operational risk**



ASSESSMENT

1. Compare the upside and downside of risk.
2. List the internal and external sources of risk that can be used in the risk identification process.
3. Read the Eskom case study and complete the table.

Case Study 1: Eskom

Introduction

South Africa experienced major electricity supply interruptions between October 2007 and February 2008 due to the inability of Eskom, South Africa's electricity supplier, to meet electricity demands.

As electricity cannot be stored, a reserve margin is set to act as a buffer against any unforeseen events. A reserve margin can be described as cushion of spare capacity that can be used when planned maintenance is necessary and when the system is impacted by unexpected technical faults that demand unplanned maintenance, such as poor coal quality, sudden peaks in demand, or extreme weather conditions.

Short term management of a shortage

The reserve margin is measured as a percentage of the maximum generating capacity. In the event of a decline in the reserve margin, the only option available is to reduce the load

through load shedding and reduced demand by customers. The National Energy Regulator of South Africa (NERSA) recommended a reserve margin of 19%. Planned maintenance is mostly scheduled in the summer months, as electricity demand is traditionally lower in summer than in winter.

Eskom implements load shedding in conjunction with the redistributors (municipalities) when the demand for power on the national grid exceeds the available generation capacity. Failure to balance the supply and demand would result in the possibility of power interruptions across the national grid. To avoid the interruptions, Eskom monitors the demand for power and shuts down sections of the grid to reduce the load and ensure network stability.

Reasons for the shortage

Government planned to open the market to independent power producers into the market however, Eskom's low prices dissuaded independent power producers from investing in the power-generation sector. Both the private sector and government resisted Eskom to build new capacity between 1996 – 2004. although they were warned that a decision was required by 2000 as the national grid will be under severe strain as the economy expands.

Eskom received approval to start building a new plant in October 2004. The long lead time required to build new stations meant that there was insufficient time to create capacity to ensure adequate generation capacity in the short term.

As a result the reserve margin has decreased to about 8%, well below the accepted norm of 15%. When generator units are taken out of service for planned maintenance, the lower reserve margin means that the remaining generator units need to run harder to meet the demand for electricity. This makes the units more vulnerable to faults caused by accelerated wear and tear, which lead to an increase in technical faults during this period.

The situation was worsened by a reduction in the quality of the coal received, which necessitated the burning of increased volumes of coal for the same output of electricity. The unusually heavy rains during January and February 2008 caused production delays

at the collieries. Wet coal turns into sludge which creates problems to process coal at the collieries and to pulverise it at the power stations. As a result of these problems, a number of power stations were unable to operate at full production.

The problem was exacerbated by low coal reserves at the power stations. The stockpiles of five power stations were below desired level. Eskom announced in January 2008 that it has problems with coal supply at some of the power stations and has appointed a team to build the stockpiles to a more acceptable level of 20 days. Coal stockpiles were improved from an average of less than 10 days' supply of coal to an average of 13 days supply as by March 2008.

CAUSE	EFFECT	CONSEQUENCE



SUMMARY

This study unit discussed the risk identification step in the risk management process. The definition of risks and underlying causes is important in the risk management process, as it serves as input in the next steps.

The risk evaluation step will be discussed in the next study unit.

STUDY UNIT 5: RISK EVALUATION

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AIM

The aim of this topic is to provide students with a clear understanding of risk evaluation as an element of the operational risk management process.



KEY CONCEPTS

Risk analysis

Impact and likelihood

Risk evaluation

Measurement of operational risk

Operational risk modelling

Operational value at risk



LEARNING OUTCOMES

At the end of the study unit the student will be able to:

- describe and discuss risk evaluation as an element of the operational risk management process
- describe and discuss the methods and processes used to evaluate operational risk

LEARNING MATERIAL

5.1. The prescribed learning material

This study unit is based on Chapter 5 of the prescribed book.

5.2. Introduction

The process followed to identify the risks was discussed in the previous study unit. Most probably, a large number of risks will be identified in any organisation and although the participants/employees who gave input with the identification of the risks would have been able to indicate, albeit intuitively, which of the risks they regard as the most important, the risk management discipline requires a more rigorous approach to evaluate risk.

Working groups tend to be dominated by a number of strong or loud characters in the group and it is therefore possible that the evaluation of risks is incorrect due to the personal preferences of the dominant group. The likelihood of achieving a more realistic evaluation is greater if a standardised approach is followed with criteria set in line, where possible, with the risk appetite of the organisation.

The 2nd step in the operational risk management step is to evaluate the identified risks. This study unit will focus on the risk evaluation process.



Study the following sections in chapter 5 of the prescribed book:

- **Risk analysis**
- **Risk evaluation**
- **Steps in the measurement of operational risk**
- **Approaches to the measurement of operational risk**
- **Operational risk modelling**

5.3. Operational value at risk

Value at risk is defined in Young (2006: 82) as the value of the expected loss at a chosen confidence level for a particular time period. For the purpose of this course, we shall focus on the factors considered to calculate the possible impact of an event and not so much on the calculation of the probability or likelihood of the event.

The principle will be demonstrated with the following example:

Risky Fish Co is a small fishing company close to Saldana Bay in the Western Cape. The company specialises in catching crayfish. Calculate the total value at risk at a given time for one vessel at sea with a maximum catch (excluding staff, fuel and other small items).

THE COMPANY DEPLOYS THE FOLLOWING EQUIPMENT

ITEM	QUANTITY	VALUE
1 x ton fishing boats	Two	R 5m
Long range radio	One per vessel	R25 000
Safety equipment per boat consist of:		
Life jackets	Five per vessel	R5 000
Life raft	One per vessel	R30 000
Crayfish nets	One per vessel	R30 000
Water pumps	Per vessel	R10 000
Fridges	Per vessel	R8 000
Crew:	One captain	
	Four crew	
Running cost:		
Maintenance		R50 000
Docking cost	253 days pa	R150
Miscellaneous (fuel, oil, provisions) for 7 days	Per boat	R10 000

Catch:

Crayfish sells at R50 per kilogram. The average weight of the crayfish is 200g. The selling price per ton (907kg) is R136 050.

The total value at risk, at a given time for one vessel at sea with a maximum catch (excluding staff, fuel and other small items), is calculated as follows:

ITEM	QUANTITY	VALUE	TOTAL
Fishing boat	1	2,500,000	2,500,000
Radio equipment	1	25,000	25,000
Safety equipment			
Life jacket	5	1,000	5,000
Life raft	1	30,000	30,000
Crayfish net	1	15,000	15,000
Water pump	1	5,000	5,000
Fridge	1	8,000	8,000
Maximum catch on board	1	136,050	136,050
Total operational value at risk			2,724,050

**ASSESSMENT**

1. List and discuss the guidelines for operational risk measurement process.
2. Discuss the steps in the measurement of operational risk.
3. Discuss the concept of risk indicators.

**SUMMARY**

The measurement of operational risk was discussed in this study unit. Measurement of risk is important to enable the organisation to better understand the risk exposure of the organisation. Management can therefore take informed decisions on how to finance the risk, from implementing more controls that is, the self financing of risk, to transferring the risk by insuring it.

Risk control will be discussed in the next study unit.

STUDY UNIT 6: RISK CONTROL

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Aim

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AIM

The aim of this topic is to provide students with a clear understanding of risk control as an element of the operational risk management process.



KEY CONCEPTS

Risk control strategies

Control methods

Pillars of control

Risk reporting



LEARNING OUTCOMES

At the end of the study unit the student will be able to:

- List and discuss concept of control.
- List and discuss the control methods for operational risk.
- Discuss the pillars of risk control.
- Discuss the risk reporting framework.

LEARNING MATERIAL

6.1. The prescribed learning material

This study unit is based on Chapter 6 of the prescribed book.

6.2. Introduction

The next step in the risk management process is to manage the identified risks. Risk control involves the activities designed to eliminate or reduce the factors that may negatively influence the strategic objectives or may cause a loss to the organisation.

The organisation can follow different control strategies and it is also important for management to align the control strategies with the strategic objectives and the risk appetite of the organisation.

Management must also monitor the adequacy and effectiveness of the control measures and must therefore introduce a reporting framework to ensure that timeous, relevant and accurate information is available to the appropriate audience to take corrective action where necessary.

Read the “Introduction” section of chapter 6 of the prescribed book.



Study the following sections in chapter 5 of the prescribed book:

- **Concept of risk control**
- **Control methods for operational risk**
- **Pillars of risk control**

6.3. The BCM process

The Business Continuity Institute (BCI) has developed an integrated model that combines six elements, consisting of the following steps:



Figure 10.2 BCM lifecycle

Hiles 2011: 124

BCM programme management

BCM programme management will enable the business continuity capacity to be established where necessary and maintained in a manner that is appropriate to the size and complexity of the organisation. A proper programme will cover the following:

- Clear roles and responsibilities
- Implementation of business continuity. This will include:
 - Communication with stakeholders
 - Training
 - Conducting exercises
- Provide ongoing management in the form of:
 - Maintenance to ensure that the BCM plan is current
 - Control document and sign-off

Embedding BCM in the culture of the organisation

Embedding BCM in the organisation's culture enables instils confidence in the stakeholders that the organisation has the ability to cope successfully with disruptions.

Understanding the organisation

It is important to have a good understanding of the organisation and the environment in which it operates. Factors that should be considered in this process are the following:

- **The regulatory environment in which the organisation operates.**

Although the focus in this course is the South African environment, many South African enterprises have operations in other countries. Legislation and business practices can differ significantly between countries which can make it extremely complex to follow a centralised or one size fits all approach. It is therefore important to liaise with the local BCM manager or coordinator to gain an understanding of the local environment. The relevant South African legislation is the Disaster Management Act, Act 57 of 2002.

- **Governance aspects**

There has been a significant focus on corporate governance and risk management over the last decade, which means that the board is responsible to ensure that risks are identified and managed within acceptable levels.

- **The strategic and business environment**

It is important with developing of the BCM strategy to understand and ensure that it will support the overall business strategy. The industry in which the organisation operates will also play a role in the development of the BCM strategy.

The operating model followed by the organisation will also be important. A centralised versus a de-centralised operating model will result in different BCM strategies.

BCM has to compete for resources against other more rewarding functions such as sales and new product development. The focus of the BCM effort should therefore be on the critical processes, with the less critical processes receiving attention at a later stage. It is therefore important to ensure that processes, applications and the

infrastructure are designed to be resilient and ensure the minimum disruption under all circumstances.

Assessing the risk and completing a business impact analysis (BIA)

An important part of the BCM process is to do a risk assessment to determine the organisation's vulnerabilities. The BIA is used to determine the mission critical processes, which will focus the business continuity effort.

Determining the BCM strategy

The organisation will have more clarity on the threats and vulnerabilities that it faces after the BIA has been completed. This will enable management to evaluate different business continuity strategies and decide on the best strategy for the organisation at an acceptable level of operation and within an acceptable timeframe after an interruption.

Developing and implementing the BCM response

To implement a BCM response, the organisation needs to create a management framework and structure to manage incidents, business continuity and business recovery plans with sufficient detailed steps to be taken during and after an accident to maintain and restore operations.

Exercising, maintaining and reviewing BCM arrangements

Although the previous steps are very important, the likelihood of recovering successfully is significantly smaller if BCM is not exercised and the plans improved continuously. Exercising, maintenance, review and auditing will increase the ability to demonstrate the extent to which the strategies and plans are complete, current and accurate and will also identify opportunities for improvement.



ASSESSMENT

1. Discuss information security management.
2. List and discuss the business continuity management lifecycle.
3. Discuss the risk reporting framework.

4. Discuss the pillars of risk control.



SUMMARY

This study unit introduced the concept of risk control. It is important that organisations align the control measures with the strategic objectives and risk appetite of the organisations. Not only will the introduction of more controls increase the cost of doing business, it may also introduce bottlenecks which may reduce the efficiency of the business processes. Too little controls may also allow the organisation to exceed its risk appetite. It is therefore important to understand the cost of risk and to follow a control strategy to balance the level of control with the risk appetite of the organisation.

Risk financing will be discussed in the next study unit.

STUDY UNIT 7: RISK FINANCING

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AIM

The aim of this topic is to provide students with a clear understanding of the financing of risk as an element of the operational risk management process.



KEY CONCEPTS

Risk financing

Cost of risk

Risk transfer

Risk retention



LEARNING OUTCOMES

At the end of the study unit the student will be able to:

- discuss the cost of risk
- discuss the elements of an operational risk financing programme
- list and discuss the various risk financing mechanisms

LEARNING MATERIAL

7.1. The prescribed learning material

This study unit is based on Chapter 7 of the prescribed book.

7.2. Introduction

The aim of risk financing is to ensure that the cost of risk is commensurate with the cost of the risk management process. Senior management should consider the potential cost of the risk before making risk transfer or retention decisions.

Read the “Introduction” section of chapter 7 of the prescribed book.



Study the “Aim of risk financing” section in chapter 7 of the prescribed book.

7.3. The cost of risk

The cost of risk can be defined as the sum of:

- Insurance cost.
- Unreimbursed losses.
- Risk control and loss prevention expenses.
- Administrative costs.

Insurance cost

Insurance cost has the following two components:

- **Direct insurance cost:** This is the total of all the insurance premiums and the opportunity cost of the funds used to pay the premiums, the tax implications of premiums and claims and the cost of capital relative to the value of the claims. Statutory insurance premiums, such as workers’ compensation and unemployment insurance, reduced with any claims, must also be included.
- **Opportunity cost:** The money spent on insurance premiums instead of investing those funds to improve production and thereby forego the opportunity to generate more profit for the entity.

Unreimbursed losses

Unreimbursed losses can arise from the following:

- Excesses provided for in insurance policies.

- Inadequate sums insured.
- Breach of policy conditions or warranties contained in policies and the consequent forfeiture of insurance protection.
- Losses resulting from risks against which there is no available insurance cover, although the risks are known.
- Uninsurable losses.
- Insolvency of the insurer.

Risk control and loss prevention expenditure

The cost will include all expenses related to risk control and prevention such as the following:

- Depreciation on major capital costs to reduce risk e.g. the depreciation of sprinkler or alarm systems.
- The cost of the time consumed in the identification and evaluation of risk, including external consultants where applicable.
- Risk control costs e.g. training and seminars.
- Subscriptions to safety, security, business continuity institutes, magazines and journals.
- Management time invested in risk control.

Administrative expenses

Administrative expenses will include:

- Clerical cost in the handling of insurance matters.
- Cost of handling self insured losses.
- Cost of reporting and investigating loss occurrences.
- Cost of an in-house risk management function.

Risk financing

Risk financing can be broadly categorised in the following two strategies, although in practice, a combination of the two strategies are used:

- **Pre-loss financing:** Insurance, retention funding.
- **Post-loss financing:** Cash resources, debt or equity funding.

Risk management model within a financial management decision making structure

Risk financing is evaluated in the context of the objectives of the entity and should therefore not be isolated from general finance and investment principles. The diagram below depicts the evaluation of risk management against the corporate objectives of value maximisation.

On the macro level, investment in risk control activities is considered with reference to the long term financial investment decision i.e. whether post-loss the entity should reinvest in that part of the operations, or abandon the business. Should the entity decide to invest in risk control, the model then directs attention to the financing decision and to question the micro integration of the pre-loss financing means of insurance or self-funding.



Study the following sections in chapter 7 of the prescribed book:

- **Cost of risk**
- **Operational risk financing programme**
- **Risk financing mechanisms**

Figure 7.1. demonstrates the risk management and financial decision making structure as discussed earlier.

Risk management model with financial management decision making structure

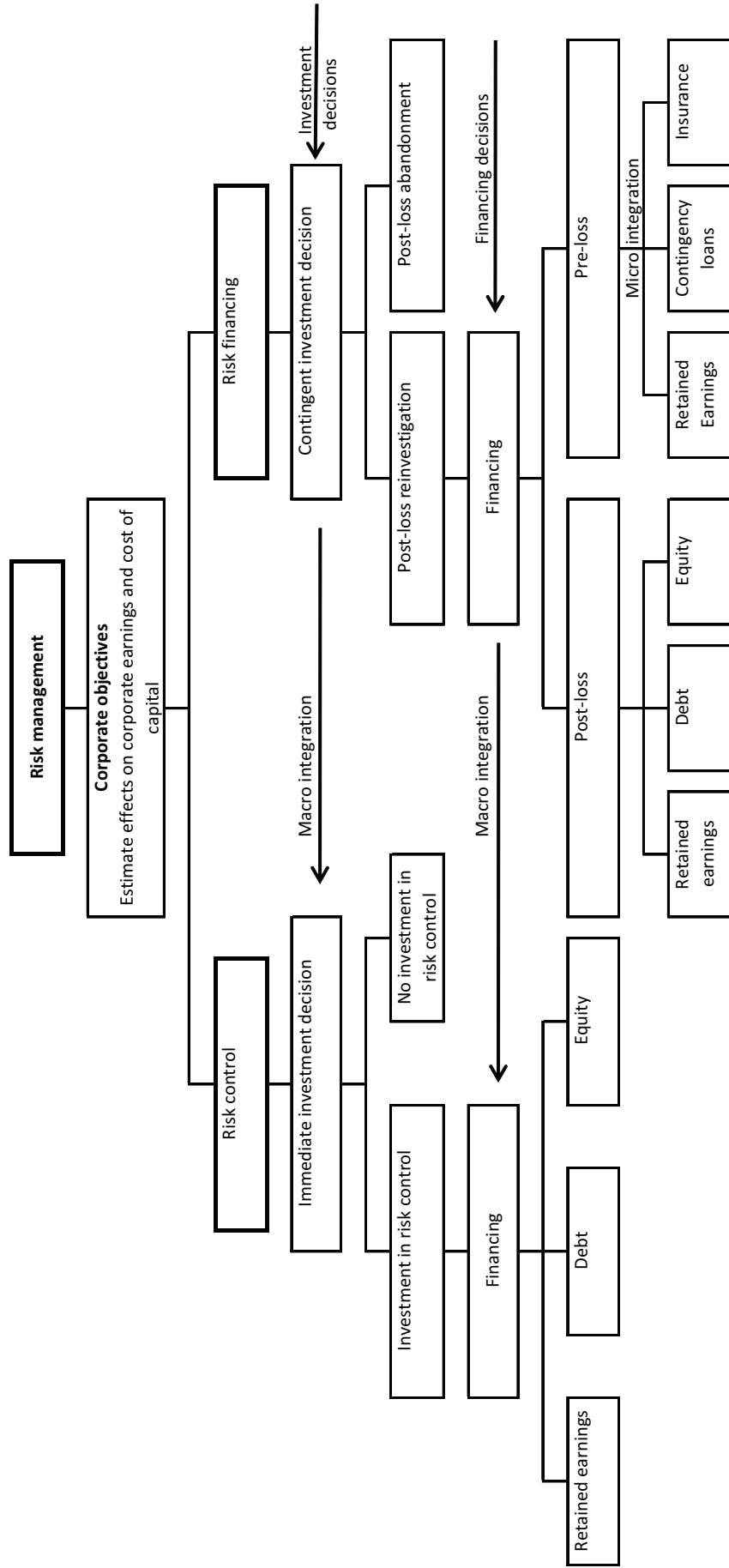


Figure 7.1. The risk management model with financial management decision structure
Source: Valsimakis (2010: 236)



ASSESSMENT

1. Discuss the concept of the retention of risk.
2. Discuss the concept of risk transfer.
3. Discuss the cost of risk.
4. Discuss insurance as a risk transfer mechanism.
5. Discuss captives as a risk retention mechanism.



SUMMARY

This study unit discussed the different methods and approaches that can be used to finance risk. The financing of risk can also have a significant impact on the organisation as it can lead to the demise of the organisation should the strategy be to retain risk and the organisation is exposed to a catastrophic event, which is greater than the accumulated reserves.

The monitoring of risk will be discussed in the next study unit.

STUDY UNIT 8: RISK MONITORING

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Summary

AIM

The aim of this topic is to provide students with a clear understanding of risk monitoring as an element of the operational risk management process.



KEY CONCEPTS

Risk monitoring

Risk monitoring methods

Monitoring process

Operational risk management model



LEARNING OUTCOMES

At the end of the study unit the student will be able to:

- Graphically illustrate the monitoring process.
- List and discuss the monitoring methods.
- Discuss the concept of risk monitoring.

LEARNING MATERIAL

8.1. The prescribed learning material

This study unit is based on Chapters 8 and 9 of the prescribed book.

8.2. Introduction

Monitoring of the operational risks of the organisation should enable senior management to understand the risk profile of the organisation, how changes in the external and internal environment affect the risk profile and corrective steps that they need to take to align the risk profile with the organisation's risk appetite.

Read the "Introduction" section of chapter 8 of the prescribed book.



Study the following sections in chapter 8 of the prescribed book:

- Risk monitoring
- Monitoring of the operational risk management process
- Monitoring methods
- Reporting
- Monitoring process

8.3. The operational risk management model

Chapter 9 is a summary of the book. Figure 9.2 gives a very good overview of the operational risk management model and process.



Study Figure 9.2 in chapter 9 of the prescribed book.



ASSESSMENT

1. Graphically illustrate the monitoring process.
2. List and discuss the monitoring methods.
3. Discuss the concept of risk monitoring.



SUMMARY

This study unit discussed the monitoring of operational risk. Feedback on the success of risk control measures to ensure that the risk profile of the organisation is aligned with the organisation's strategies and risk profile is very important in the operational risk management process.

This module very briefly introduced the concepts of risk and risk management. Risk management is a dynamic field and significant research is done in the field. Practitioners have also learned costly lessons and one of the most important lessons is that the fundamentals need to be in place to ensure an effective risk management programme. The principles discussed in this course are therefore important, irrespective whether the area of specialisation is credit or market risk.

We hope that you have enjoyed the module, best of luck with the examination and that we will meet again in RSK3701.

REFERENCE

Blunden, T. Thirlwell, J. 2010. *Mastering Operational Risk*. Harlow Pearson Education Ltd (ISBN 978-0-273-72732-3).

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