NATIONAL OPEN UNIVERSITY OF NIGERIA

FACULTY OF MANAGEMENT SCIENCES

COURSE CODE: BFN421

COURSE TITLE: RISK MANAGEMENT AND INSURANCE

BFN421

RISK MANAGEMENT AND INSURANCE

COURSE GUIDE

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BFN421: RISK MANAGEMENT AND INSURANCE

1.0 INTRODUCTION

BFN421: Risk Management is a two credit course for students offering B.Sc. Entrepreneurship and Business Management in the Faculty of Management Science.

The course will consist of fifteen (15) units, that is, three (3) modules of five (5) units for each module. The material has been developed to suit undergraduate students in Entrepreneurship and Business Management at the National Open University of Nigeria (NOUN) by using an approach that treats fundamental areas of risk management.

A student who successfully completes the course will surely be in a better position to manage risk exposures of organizations in both private and public organizations.

The course guide tells you briefly what the course is about, what course materials you will be using and how you can work your way through these materials. It suggests some general guidelines for the amount of time you are likely to spend on each unit of the course in order to complete it successfully. It also gives you some guidance on your tutor-marked assignments. Detailed information on tutor-marked assignment is found in the separate assignment file which will be available in due course.

2.0 WHAT YOU WILL LEARN IN THIS COURSE

This course will introduce you to the fundamental aspects of risk management generally. It also includes the Meaning and Nature of Risk, Types of Risk, People's Attitude to Risk, Costs Associated with Risk, Causes of Risk, Scope and Benefits of Risk Management, Process & Methods of Risk Management, Agents of Risk Management, and Risk and Quality Control.

3.0 COURSE AIMS

The course aims, among others, are to give you an understanding of the intricacies of risk management and how to apply such knowledge in managing risk exposures in both private and public enterprises.

The Course will help you to appreciate Nature of Risk, Types of Risk, People's Attitude to Risk, Costs Associated with Risk, Scope and Benefits of Risk Management, Process

& Methods of Risk Management, Agents of Risk Management, and Risk and Quality Control.

The aims of the course will be achieved by:

- Explaining the Concept and Nature of Risk;
- Identifying and explaining Types of Risk;
- Discussing the aspects of People's Attitude to Risk;
- Presenting the aspects of Costs Associated with Risk exposures;
- Identifying and explaining causes of risk;
- Highlighting and discussing Scope and Benefits of Risk Management;
- Describing Process of Risk Management;
- Discussing Methods of Risk Management;
- Explaining Agents of Risk Management; and
- Discussing Risk and Quality Control.

4.0 COURSE OBJECTIVES

By the end of this course, you should be able to:

- Define the concept and Nature of Risk;
- Discuss the fundamental aspects of Types of Risk;
- Analyse the aspects of People's Attitude to Risk;
- Discuss the aspects of Costs Associated with Risk exposures;
- Discuss Causes of Risk;
- Analyse the Scope and Benefits of Risk Management;
- Explain the Process of Risk Management;
- Discuss the Methods of Risk Management;
- Analyze the Agents of Risk Management; and
- Discuss Risk and Quality Control.

5.0 WORKING THROUGH THIS COURSE

To complete this course, you are required to read all study units, attempt all the tutor-marked assignments and study the principles and practice of risk management in this material provided by the National Open University of Nigeria (NOUN). You will also need to undertake practical exercises for which you need access to a personal computer running Windows 95.

Each unit contains self-assessment exercises, and at certain points during the course, you will be expected to submit assignments. At the end of the course is a final examination. The course should take you about a total 17 weeks to complete. Below are the components of the course, what you have to do, and how you should allocate your time to each unit in order to complete the course successfully on time.

6.0 COURSE MATERIALS

Major components of the course are:

- Course Guide
- Study Units
- Textbooks
- Assignment file

7.0 STUDY UNITS

The study units in this course are as follows:

MODULE 1:

Unit 1: Meaning and Nature of Risk
Unit 2: Types of Risk
Unit 3: Risk and Business Stakeholders
Unit 4: People's Attitudes to Risk
Unit 5: Costs Associated With Risk

MODEL 2:

Unit 6: Causes of Risk
Unit 7: Scope & Benefits of Risk Management
Unit 8: Process of Risk Management

Unit 9: Methods of Risk Management

Unit 10: Agents of Risk Management

MODULE 3:

Unit 11: Risk Detection
Unit 12: Risk Evaluation

Unit 13: Risk Control

Unit 14: Risk Financing

Unit 15: Risk and Quality Control

8.0 ASSIGNMENT FILE

In this course, you will find all the details of the work you must submit to your tutor for marking. The marks you obtain for these assignments will count towards the final mark you obtain for this course. Further information on assignments will be found in the assignment file itself and later in the section on assessment in this course guide. There are 14 tutor-marked assignments in this course; the student should attempt all the 14.

9.0 PRESENTATION SCHEDULE

The presentation schedule included in your course materials gives you the important dates for this year for the completion of tutor-marked assignments (TMAs) and attending tutorials. Remember, you are required to submit all your assignments by the due date. You should guard against falling behind in your work.

10.0 ASSESSMENTS

There are two aspects to the assessment of the course: first are the tutor-marked assignments; and second is a written examination.

In tackling the assignments, you are expected to apply information, knowledge and techniques gathered during the course. The assignments must be submitted to your tutor for formal assessment in accordance with the deadlines stated in the ***Presentation Schedule*** and the ***Assignment File***. The work you submit to your tutor will count for 30% of your total course mark.

At the end of the course, you will need to sit for a final written examination of 'three hours' duration. This examination will also count for 70% of your total course mark.

11.0 TUTOR-MARKED ASSIGNMENT (TMAs)

There are fifteen tutor-marked assignments in this course and you are advised to attempt all. Aside from the course material provided, you are advised to read and research widely using other references (under further reading) which will give you a broader viewpoint and may provide a deeper understanding of the subject. Ensure all completed assignments are submitted on schedule before set deadlines. If for any reasons, you cannot complete your work on time, contact your tutor before the assignment is due to discuss the possibility of an extension. Unless in exceptional circumstances, extensions may not be granted after the due date.

12.0 FINAL EXAMINATION AND GRADING

The final examination for this course will be of ‘three hours’ duration and have a value of 70% of the total course grade. All areas of the course will be assessed and the examination will consist of questions, which reflect the type of self-testing, practice exercises and tutor-marked problems you have previously encountered. All areas of the course will be assessed.

Utilise the time between the conclusion of the last study unit and sitting for the examination to revise the entire course. You may find it useful to review your self-assessment tests, tutor-marked assignments and comments on them before the examination.

13.0 COURSE MARKING SCHEME

The work you submit will count for 30% of your total course mark. At the end of the course, you will be required to sit for a final examination, which will also count for 70% of your total mark. The table below shows how the actual course marking is broken down.

Table 1: Course Marking Scheme

ASSESSMENT	MARKS
Assignment 6 (TMAs)	4 assignments, best 3 will be used for the Continuous Assessment = 10 x 3 = 30%
Final Examination	70% of overall course marks
Total	**100% of course marks**

14.0 ASSIGNMENT FILE

Unit	Title of work	Weeks activity	Assessment (end of unit)
1	Meaning and Nature of Risk	1	
2	Types of Risk	1	
3	Risk and Business Stakeholders	1	
4	People's Attitude to Risk	1	
5	Costs Associated with Risk	1	
6	Causes of Risk	1	
7	Scope & Benefits of Risk Management	1	
8	Process of Risk Management	1	
9	Methods of Risk Management	1	
10	Agents of Risk Management	1	
11	Risk Detection	1	
12	Risk Evaluation	1	
13	Risk Control	1	
14	Risk Financing	1	
15	Risk and Quality Control	1	
	Revision		
	Total	**15**	

15.0 TUTORS AND TUTORIALS

There are 15 hours of tutorials provided in support of this course. You will be notified of the dates, times and location of these tutorials, together with the names and phone numbers of your tutor, as soon as you are allocated a tutorial group.

Your tutor will mark and comment on your assignments, keep a close watch on your progress and on any difficulties you might encounter as they would provide assistance to you during the course. You must submit your tutor-marked assignments to your tutor well before the due date (at least two working days are required). They will be marked by your tutor and returned to you as soon as possible. Do not hesitate to contact your tutor by telephone, e-mail, or discussion group if you need help.

The following might be circumstances in which you would find help necessary, when:

- you do not understand any part of the study units or the assigned readings.
- you have difficulty with the self-tests or exercises.

- you have a question or problem with an assignment with your tutor's comment on an assignment or with the grading of an assignment.

You should try your possible best to attend the tutorials. This is the only chance to have face-to-face contact with your tutor and to ask questions which are answered instantly. You can raise any problem encountered in the course of your study. To gain the maximum benefit from course tutorials, prepare a question list before attending them. You will learn a lot from participations in discussions.

16.0 SUMMARY

BFN421: Risk Management intends to expose the undergraduate students to the nitty-gritty of managing risk exposures in any enterprise undertaking, be it a private or public, corporate or small business enterprises, government or non-governmental organisations. Upon completing the course, you will be equipped with the necessary knowledge required to produce a good research work.

We hope you enjoy your acquaintances with the National Open University of Nigeria (NOUN). We wish you every success in the Future.

BFN421

RISK MANAGEMENT AND INSURANCE

COURSE DEVELOPMENT

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UNIT 1: MEANING AND NATURE OF RISK

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1.0 INTRODUCTION

Risk is inherent in all human activities be they business undertakings, engineering works, farming, hunting, and operations in self employed endeavours, etc. Above all, risk is associated with our lives. Therefore, there is the more reason why people, for instance, insure against grave happenstance which may jeopardize their existence, incapacitation, or infirmity. Accordingly, different people have different views regarding the perception of risk. The fundamental consideration is the implication of risk for the corporate existence of business undertakings because of their impact on the economy as a whole. Hence, the discussion in this initial study unit is on conception of risk.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the meaning of risk
- discuss the nature of risk
- differentiate between uncertainty and risk

3.0 MAIN CONTENT

3.1 MEANING OF RISK

There are many definitions of the term risk which are examined herein so that you can appreciate the nature of risk. An array of definitions is reviewed below towards establishing a framework for the discussion of risk.

According to Harrington (1999), the term risk has a variety of meaning in business and everyday life. At its most general level, risk is used to describe any situation where there is uncertainty about what outcome will occur. Life is obviously very risky, even the short-term future is often highly uncertain. In probability and statistics, financial management, and investment management, risk is often used in a more specific sense to indicate possible variability in outcomes around some expected value.

In a similar vein, Kaye (2001) sees risk from the perspective of an event. Therefore, Kaye opines that risk will be looked at from the viewpoint of whether an incident is likely to occur. It is also necessary to consider how often such an incident could happen and how damaging the incident would be if and when it occurred.

Williams, Jr. and Heins (1985), in their own view, posit that risk is the variation in the outcomes that could occur over a specified period in a given situation. If only one outcome is possible, the variation and hence the risk is zero. If many outcomes are possible, the risk is not zero; therefore, the greater the variation in outcomes the greater the risk element that will occur.

In the perception of Greene and Triechman (1984) describe risk as uncertainly as to loss which poses a problem to individuals in nearly every walk of life. All human beings, regardless of their individual status, must face risk and develop ways to handle it.

For instance, if in business, a loss is certain to occur, the businessman may then plan to mitigate it in advance and treat as a definite cost to the business. Nevertheless, in the event of uncertainty about the occurrence of a loss, risk would come into play since uncertainty breeds calamity and consequential burden on the business and its fortunes.

Self Assessment Exercise 1

Explain the term risk.

3.2 NATURE OF RISK

Risk is regarded as naturally inherent in every human activity. And in business, risk is inherently treachery and therefore, despised by investors because of its grave consequences for the fortunes of any corporate entity. Paradoxically, risk is also appreciated by some financial analysts, managers and investors because the presence of risk in a business operation is indicative of the fact that the undertaking is profitable.

Hence, the higher the risk element in a particular venture, the higher will be the return. It implies that managers and investors regard risky venture as a profitable venture. For instance, petroleum business in either upstream or downstream sector is extremely risky but it is one business that is very profitable around the world. The risky nature of the business, therefore, does not dissuade investors from staking the funds in it.

The following deductions underline the nature of risk:

- Risk varies in its possible occurrence and outcomes or consequences;
- The occurrence of risk and its outcomes depend on chance;
- Risk is characterized by uncertainty as to its occurrence and magnitude of loss;
- Risk refers to uncertainty because it is inherently linked to uncertainty or chance of a loss;
- Risk has been described as the possibility that loss will be greater than is normal, expected, or usual.

Hence the nature of risk has informed the rationale for its mitigation because of its unpredictable occurrence in most cases and the magnitude of the loss that do accompany it when it rears its ugly head.

You will appreciate the fact that the understanding of the nature of risk is essential towards preparing human beings and business for instituting measures for mitigating it or even precluding it from occurring.

Self Assessment Exercise 2
Outline the salient deductions that are inherent in the nature of risk.

3.3 UNCERTAINTY AND RISK

In business decisions the element of future is dicey in consideration. This is due to the fact that some future circumstances cannot be predicted with precision regardless of the fact that some devices are available for assessing future events.

Nevertheless, under condition of certainty, some events or their outcomes can be determined to some extent. This is possible with the aid of statistical analysis; using statistical deductions to forecast future events or outcomes of such events. For instance, events such as rainfall, sunshine, flood, drought, famine, thunderstorm, typhoon and tornado can be predicted.

On the other hand, under condition of uncertainty, it becomes difficult to predict the future events and the outcomes of happenstance. By implication, decision makers have difficulties in assigning some probabilities to the outcomes of some future events.

Difficulty in predicting future events under condition of uncertainty can arise out of absence of information or lack of knowledge concerning the possible outcomes to expect from such events. Essentially, therefore, it becomes difficult for the decision makers to obtain statistical information and or scientific devices with which to predict the future events and their outcomes with any degree of confidence.

It implies that under condition of uncertainty, the decision makers cannot determine or measure the future events or their outcomes because their probabilities are unknown or not available. And since the possible outcomes of the future events are difficult to predict by the decision makers, it will be very difficult to measure or forecast them with any degree of accuracy.

The above scenario is a common phenomenon confronting managers in their day-to-day managerial decisions. For example, a bank manager may not be able to predict the level of acceptability of a new electronic product or service by the banking public due to the fact that no similar product has been introduced to the public before.

Uncertainty when compared to the element of risk is a subjective occurrence. Therefore, it implies that different decision makers are not likely to come up with similar opinions on the outcomes of decisions taken under condition of uncertainty. Hence, it becomes very difficult to build up unanimously acceptable techniques for dealings with uncertainty.

Nevertheless, the decision makers who are operating under condition of uncertainty normally endeavour to produce some probability distribution of likely outcomes on the basis of their personal judgment regarding the situation under consideration.

For instance, any predication regarding the outcome of acceptance of a new electronic product being introduced by a bank, which is similar to those types being marketed by other banks, is bound to be subject. This is because analysts are likely to come up with varying views, which will be based on their personal judgment.

Self Assessment Exercise 3
Differentiate between condition of certainty and condition of uncertainty.

4.0 CONCLUSION

In this initial unit of the study material, you have observed that risk is embedded in uncertainly in terms of loss to individuals and businesses. Businesses and human beings normally plan in advance to mitigate risk and will be treat as a cost. In the event of uncertainty about the occurrence of a loss, risk would come into play since uncertainty breeds calamity and consequential burden on the business and its fortunes. The condition of uncertainty implies that the decision makers cannot determine or measure the future events or their outcomes because their probabilities are unknown. Therefore, the decision makers who are operating under condition uncertainty normally produce some probability distribution of likely outcomes on the basis of their personal judgment regarding the situation under consideration.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Meaning of Risk
- Nature of Risk
- Uncertainty and Risk

In the next study unit, you will be taken through the discussion on different types of risk which confront the business entities.

6.0 TUTOR – MARKED ASSIGNMENT

Explain the term risk. What are the deductions that can be made regarding the nature of risk?

Solution to Self Assessment Exercises

SAE 1:

Risk refers to any situation where there is uncertainty or variability about the outcome of an event or decision. Risk involves loss and cost to individuals and business entities. In probability and statistics, financial management, and investment management, risk is often used in a more specific sense to imply possible variability in outcomes around some expected value.

SAE 2:

The salient deductions that underscore the nature of risk are:

- Risk varies in its possible occurrence and outcomes or consequences;
- The occurrence of risk and its outcomes depend on chance;
- Risk is characterized by uncertainty as to its occurrence and magnitude of loss;
- Risk refers to uncertainty because it is inherently linked to uncertainty or chance of a loss;
- Risk has been described as the possibility that loss will be greater than is normal, expected, or usual.

SAE 3:

Under condition of certainty, some events or their outcomes can be determined with the use of statistical analysis by using statistical deductions to forecast the outcomes of future events. For instance, events such as rainfall, sunshine, flood, drought, famine, thunderstorm, typhoon and tornado can be predicted.

On the other hand, under condition of uncertainty, it becomes difficult to predict the future events and their outcomes. It implies that decision makers have difficulties in assigning some probabilities to the outcomes of some future events. Therefore, decision makers depend on their personal judgment for taking business decisions.

7.0 REFERENCES/FURTHER READINGS

Bickechaupt, D. (1974), General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006), Risk Management for Insurance Practice, Lagos: Inter Training and Education Services.

Oluoma, R. O. (1999), Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996), Risk Management and Insurance, 7th Ed. New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001), Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

- **Further Reading**

Kaye, D. (2004), Risk Management, London: Chartered Insurance Institute.

UNIT 2: TYPES OF RISK

CONTENT

1.0 INTRODUCTION

Business entities function in dynamic environment with forces which do affect their operations in varied and differing proportions. Therefore, they operate in an environment that presents various types of risks because their operations are exposed hazards and hiccups as a result of situational dictates. Some business risks are inherently associated with operations. Some other risks arise as a result of the interplay of forces and upheavals of the external environment. In this study unit, therefore, such various types of risk which business organizations have to contend with are discussed.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- identify the different types of risk confronting a business
- mention and discuss the internal risks of a business
- list and explain the external risks of a business

3.0 MAIN CONTENT

3.1 TYPES OF RISK CONFRONTING BUSINESS

All businesses face risks regardless of its size of operations, location, types of products produced or services rendered to the public. It is instructive to note that unmitigated risks can spell enormous consequences such as collapse of operations, failure and financial losses.

Therefore, the understanding of such risks by entrepreneurs can help them determine the necessary measures to be adopted in protecting their businesses and investment generally.

Business risks range from internal risks to external risks. Some of these risks are systematic risk, unsystematic risk, business risk, liquidity risk, financial risk, exchange rate risk, political risk, market risk, strategic risk, operational risk and compliance risk.

3.2 EXTERNAL RISKS OF A BUSINESS

These risks are associated with the dictates of the external environment, which are beyond the control of the firm. These types of risk are as identified and discussed below.

1. Financial Risk

It is the type of risk which arises as a result of external obligations. It is associated with the possibility that the business may not have enough funds to meet its financial obligations.

Such obligations include debt repayments, dividend payments, payments of taxes, settlement of financial transactions. The risk also encompasses the possibility that external sources of finance may not be available when needed.

2. Systematic Risk

This is the type of risk that cannot be abridged or predicted in any approach. Therefore, it becomes almost impracticable to protect the business entity against it. Some examples of these risks are interest rate fluctuation, changes in government legislation, and environmental upheavals.

3. Speculative risk

This type of risk arises as a result of committing funds in high risk investment such as funds used to speculate on oil business and capital market investment.

In the case of capital market investment, some firms in the country took loans to invest in shares during the initial public offer. This was purely speculative in nature. When the bubble in the Nigerian capital market burst, the investments in shares were lost.

The contagious affect on the banking industry contributed to the collapse of some banks that bore the brunt of the speculative attitude of the investors. The so-called marginal loans that were granted to such capital market speculators turned into toxic assets to the banks.

4. Exchange Rate Risk

This type of risk arises from the fluctuations in foreign exchange rates. This can affect investment in other countries and transactions on imports and exports.

The fluctuations in foreign exchange rate, particularly a constant rise in the value of other currencies compared with the value in currency of the home country cause for home industries. The situation would erode the value of the purchasing power of the firms when related to the payment to be made for foreign supplies for production.

In terms of oversea investment, in the event of exchange rate risk being high, the value of the home currency may be less than the foreign currency. This may erode a significant amount of earnings of the foreign investment.

5. Market Risk

This type of risk is associated with the price fluctuations or volatility in the market for a firm's products or services. In the event of persistent fall in the market price for the firm's products, the expected revenue would fall and the firm might not be in a position to meet its obligations in operations.

6. Political Risk

This type of risk involves the risk associated with investment of funds in another country where the political environment is unstable. The risk can crop up as a result of a major change in the political setup.

It implies that the political risk or country risk as the case may be, could devalue the investment and reduce its overall return. Hence, this type of risk is usually associated with emerging or developing countries that are characterized by unstable political or economic scenarios.

SELF ASSESSMENT EXERCISE 1

Mention and explain the various types of external risk.

3.3 INTERNAL RISKS OF A BUSINESS

These risks are associated with the internal intricacies of a firm's operations. These types of risk are as identified and discussed below.

1. Strategic Risk

This type of risk, according to The Institute of Risk Management, is said to be future oriented and can arise when:

- a new competitor enters a firm's industry;
- two businesses in the industry merge to create a power house;
- the firm faces decisions about creating new products;
- the firm faces decisions about entering new markets; and
- the firm is considering the location of a disaster recovery site in relation to the main centre of operations.

It is risky when the recovery site is too close to the main centre of operations due to the possibility of the two structures being consumed in an inferno. It is also problematic when the site is far away from the main centre of operations due to communication and logistic bottlenecks.

SELF ASSESSMENT EXERCISE 2

What are the circumstances that give rise to strategic risk in business?

2. Unsystematic Risk

This type of risk is inherent in or specific to the nature of the assets. In some cases, such risks can be eliminated or guided against through a process called diversification. Some examples of this type of risk are strikes by workers and changes in management decisions.

3. Liquidity Risk

This is the type of risk which may arise from the fact that the firm may find it difficult to generate enough quantum of funds with which to meet its short-term financial obligations.

The expected illiquidity position is associated with the use of obsolete items of operational equipment which may break down. Hence, the firm would not be able to compete with other firms in meeting market conditions.

4. Operational Risk

The operational risk is conceptualized as the risk of loss arising from failed processes, people and systems, as well as external events. In other words, operational risk refers to the possibility that transactions or processes can fail as a result of poor design, inadequately trained personnel and external disruptions.

Operational risk also incorporates the risk of frauds and the possibility that the business can fail to meet the contractual obligations of a transaction arising from operational hiccups.

5. Compliance Risk

This type of risk arises from the possibility that the firm might not comply with laws and regulations within the jurisdictions where it operates, which could spell some enormous costs and thereby affects its fortunes.

This type of risk can also arise as a result of the possibility that the firm might violate the obligations of a legally binding contract entered into in the course of business transactions. The consequences of such violation are in areas of court cases, costs of legal processes, seizure of operational equipment, etc.

6. Business Risk

This type of risk is inherent in the uncertainty of income caused by the nature of the firm's business. The uncertainty in income generation can arise from problems associated with company's products, ownership structure, composition of the board, management quality and behaviour, and market position.

SELF ASSESSMENT EXERCISE 3

Mention and explain the various types of internal risk.

4.0 CONCLUSION

In this study unit, you have understood that there are both internal and external types of risk that the business entities have to contend with in the process of operations. The internal risks are under the control of the business because they can be effectively managed by the organization. On the other hand, as you have observed, the external risks are beyond the contemplation of the firms. Nevertheless, the firms will still have to plan for their mitigation.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Types of Risk Confronting Business
- External Risks of a Business
- Internal Risks of a Business

In the next study unit, you will be taken through the discussion on risk and business stakeholders.

6.0 TUTOR – MARKED ASSIGNMENT

Enumerate and explain various types of risk confronting business entities.

Solution to Self Assessment Exercises

SAE 1:
The external risks of business are as follows:
i. Financial Risk

It is the type of risk which arises as a result of external obligations. It is associated with the possibility that the business may not have enough funds to meet its financial obligations.
ii. Systematic Risk

This is the type of risk that is almost impracticable to protect the business entity against it. Some examples of these risks are interest rate fluctuation, changes in government legislation, and environmental upheavals.
iii. Speculative risk

This type of risk arises as a result of committing funds in high risk investment such as funds used to speculate on oil business and capital market investment. iv. Exchange Rate Risk

This type of risk arises from the fluctuations in foreign exchange rates. This can affect investment in other countries and transactions on imports and exports. v. Market Risk

This type of risk is associated with the price fluctuations or volatility in the market for a firm's products or services, which can affect the expected revenue. vi. Political Risk

This type of risk involves the risk associated with investment of funds in another country where the political environment is unstable.

SAE 2:
The circumstances that give rise to strategic risk in business are as follows:

- a new competitor enters a firm's industry;
- two businesses in the industry merge to create a power house;
- the firm faces decisions about creating new products;
- the firm faces decisions about entering new markets; and

- the firm is considering the location of a disaster recovery site in relation to the main centre of operations.

SAE 3:
The internal risks of business are as follows:
i. Strategic Risk

It is a future oriented risk arising from decisions on creating new products, entering new markets, and location of a disaster recovery site in relation to the main centre of operations as well as emergence of mergers and new entry in the market. ii. Unsystematic Risk

This type of risk is inherent in or specific to the nature of the assets, which can be eliminated or guided against through a process called diversification. Examples are strikes and changes in management decisions. iii. Liquidity Risk

This is the type of risk which may arise from the fact that the firm may find it difficult to generate enough funds to meet its short-term financial obligations. iv. Operational Risk

This is the risk of loss arising from failed processes, people and systems, as well as frauds, external events, etc.
v. Compliance Risk
This type of risk arises from the possibility that the firm might not comply with laws and regulations within the jurisdictions where it operates, which could spell some enormous costs and thereby affects its fortunes.
vi. Business Risk

This type of risk is inherent in the uncertainty of income caused by the nature of the firm's business; from problems associated with company's products, ownership structure, composition of the board, management quality and behaviour, and market position.

7.0 REFERENCES/FURTHER READINGS

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- **Further Reading**

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UNIT 3: RISK AND BUSINESS STAKEHOLDERS

CONTENT

2.0 INTRODUCTION

Business organizations do not operate in vacuum. Therefore, they operate in a given environment. In fact business organizations are creatures of the environment. Such environment comprises stakeholders who have vested interest in the operations of various business undertakings. Hence, these stakeholders are interested in the risk affecting businesses and how business entities handle the issue of risk is of paramount consideration in their dealings with them. Therefore, in this study unit, we shall discuss the interest of business stakeholders in relation to the issue of business risk.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain business stakeholders and risks
- mention and discuss outside stakeholders and risk
- identify and discuss inside stakeholders and risk

3.0 MAIN CONTENT

3.1 STAKEHOLDERS AND BUSINESS RISKS

The business stakeholders comprise the interested parties in the operations of any business entity. It is not only the owners or shareholders of a business entity that is interested in the fortunes of such business. There are other parties or stakeholders who have to partake in the business entity’s fortunes.

In the opinion of Kaye (2004), the stakeholders of a business entity comprise the people or organizations, which could be affected by a risk incident occurring in the organization itself. This is in consideration of the fact that risk has great potential to “threaten the operations, assets and other responsibilities” of any business entity.

For instance, the Tsunami that occurs in Japan recently and tornado witnessed in the West cost of US in 2011 wrecked havoc on both human beings and business entities to the extent that some business ventures have been completely wiped out of existence. Hence, the implication is that all stakeholders of businesses in both countries have incurred monumental losses.

Stakeholders of a business entity are the management, employees, government, labour union, suppliers, customers, the media, insurance companies, regulators, investors, banks, capital market, and other business entities.

Self Assessment Exercise 1:
Explain the stakeholders of a business organization.

3.2 INSIDE STAKEHOLDERS AND RISK

There are some stakeholders who are insiders to the business organization. Such stakeholders from among those identified above are discussed hereunder.

1. The Shareholders

The shareholders of a corporate entity have vested interest in the company because of their investment. The board of directors of a company is normally constituted to represent the interest of the shareholders in the business. Therefore, the directors will be interested not only in the level of risk exposures of their company but also the measures put in place by the management to preclude and mitigate the operational risks of the business.

The best practice in corporate governance stipulates that the board of directors of a company should, as a matter of policy, have a risk committee that will be charged with the responsibility of overseeing the management of the risk exposure of their corporate entity.

Therefore, the board of directors as stakeholders in a business has the strategic responsibility in partly managing the risk exposure of the business so as to ensure profitable operations and survival of the entity. Such onerous role of the board is critical towards avoiding disruptions in the company's business operations which may arise from occurrence of risk.

The foregoing discussion attests to the fact that the shareholders are exposed to the risk of losing the funds they invest in a company if anything untoward happens to the business.

2. Management as Stakeholder

The major pre-occupation of any business entity is to maximize profit from its operations. Nevertheless, management recognizes the fact that such objective of maximization of profit can be jeopardized at the instance of occurrence of risk.

Therefore, management is interested in various risks which are inherent in business operations. The understanding of operational risks will prepare the management team in instituting appropriate measures to checkmate and mitigate known business risks such as those discussed in the initial unit of this study material.

The management team of any business organization cannot afford to neglect the issue of risk in operations. This is because business operations are prone to risks, which have been highlighted and discussed in the earlier study unit. For instance, the occurrence of risk such as fire outbreak in a factory can be accompanied by monumental loss of operational assets and consequence of stoppage of operations.

3. The Employees

The employees of a business entity have vested interest in the operations of the organization. Such interest is informed by their stake in the revenue of the organization because their salaries and allowances come from it.

The other areas of employees' interest in the organization include their morale and pride, which are often reflected in the degree of their self motivation level of performance and productivity and above all, the quality of their work.

The employees of a corporate entity are also interested in their maintaining their jobs in order to sustain their personal and family lives, their self-esteem and regular receipt of their salaries and allowances. The occurrence of operational loss arising out of risk can jeopardize the company's operations and by extension the payment of employees' salaries and allowances.

Hence, the employees would be interested in appropriate management of business operational risks that can guarantee a safe working environment, survival of the organization, enhanced operational fortunes, and organizational effectiveness.

4. Labour Union

The labour union which represents the collective interest of the workers in a business entity also have vested interest in the operations of the organization. The union's interest is informed by their stake in the healthy operations of the organization. This is because the workers' fate is dependent on the survival of the business.

The labour union in any corporate entity is normally pre-occupied first and foremost with the profitable operations of the entity. This operational scenario is needed to guarantee the workers' jobs. The occurrence of loss arising out of operational risk can jeopardize the company's operations, which will eventually impact negatively on the payment of employees' salaries and allowances.

Therefore, the labour union would be interested in appropriate management of business operational risks that can guarantee an ideal working condition, the survival of the organization, enhanced corporate performance, and organizational effectiveness.

5. The Suppliers

The suppliers of productive materials, in the case of a manufacturing outfit and commercial products in the case of merchandizing business, have stake in the business. This is because the operational fortunes of the business have impact on their patronage and payments for their supplies.

The suppliers will be interest in the nature of risks to which the businesses of their customers are exposed so as to influence their level of business dealings with them. This is because of the fact that any occurrence can impact negatively on the stake of the suppliers.

The suppliers to any organization will be concerned and depend on its survival, for doing business with it, in the absence of occurrence of crippling risks. The survival of the organization will encourage the suppliers to deliver and receive payment for the goods or services contracted.

Sometimes the loss of one or more large customers resulting from the occurrence of any of the business risks can destroy the business of a supplier of gods and service to such organizations. Therefore, the suppliers will be interested not only in the level of risk exposures of their customers but also the measures put in place to preclude and mitigate business risks.

6. The Distributors

The distributors of products of corporate organizations will be interested in the steady supplies of the products. Since there is no business that is insulated from operational risks, the distributors will be concerned about the nature of risks inherent in the operations of their suppliers.

Hence, the distributors will be interested not only in the level of risk exposures of their customers but also the measures put in place to preclude and mitigate business risks. This is necessary in order to avoid disruptions in their business operations which may arise from occurrence of risk to the operations of their suppliers.

Most business customers are free to change their sources of suppliers but it is easier said than done because of the protocol involved in switching to other organizations that have not been doing business with them before. Such protocols include calling for references from their bankers, signing of bonds for performance, and making available of qualified guarantors.

7. Industrial Customers

The industrial users of the products of a company's are major stakeholders in the business because they depend on the suppliers for their productive operations. The users as customers can be affected by any risk which may disrupt the suppliers' operations.

Such occurrence of risks and consequently, the disruption of operations may affect their relationships since it will become difficult to fulfill the contractual obligations for suppliers and hence, such failure will make the confidence in the suppliers to be lost.

Therefore, the industrial customers will be interested not only in the level of risk exposures of their suppliers' operations but also the measures put in place to preclude and mitigate business risks. This is necessary in order to avoid disruptions to their manufacturing operations which may arise from occurrence of risk to the operations of their suppliers.

Self Assessment Exercise 2:

Identify the inside stakeholders of a business organization and show how they can be affected by risks in operations.

3.3 OUTSIDE STAKEHOLDERS AND RISK

There are some stakeholders who are outsiders to the business organization. Such stakeholders from among those identified above are discussed hereunder.

1. The Government

The government is interested in the overall economy and by implication, all the productive units which include all business organizations are being monitored by the state apparatus. Therefore, government has vested interest in the operations of corporate bodies doing business within her territory.

First and foremost, the government is interested in the growth and development of the economy which can only be ignited and sustained by business entities. Above all, the industrialization efforts of the government is normally complimented and enhanced by business operations.

The business entities do contribute enormous quantum of funds to the coffer of the government through profit and income taxes, royalties, rents, commissions, surcharges, fines, and duties. In fact, most countries of the world depend on taxes and the charges being paid by business entities for executing projects in developing both economic and social infrastructure besides using such funds to discharge other numerous state obligations.

Therefore, government will be interested not only in the level of risk exposures of business entities operating within her economy and even those companies of the country's origin but operating abroad (multinational corporations). In addition, the government is also concerned about the measures put in place to preclude and mitigate operational risks of business entities.

The concern of the government about business risks and strategic measures to preclude and ameliorative such risk exposures is indispensable. Such posture of government which finds favour in policies and laws is crucial to forestall grave impact of occurrence of operational risk of business operations on the economy.

For instance, the recent oil leakage (occurrence of operational risk) from the offshore facility of the British Petroleum (BP) company along the East coast of the US caused monumental damage to the ecological environment, loss of fishing grounds by the natives and displacement of aquatic lives from the area affected by the leakage.

2. The Regulators

There are business and environment regulators whose actions are geared towards regulating the operations of the businesses to ensure that they conform with laid down best practices in their dealings and protection of the environment.

There are various regulators such as NAFDAC, SON, CPC, EFCC, Customs, and Immigration which have operational activities, in many different ways, which require them in taking a continuing interest in corporate entities' operations and dealings within the country's economy.

The failure on the part of business entities to satisfy the statutory and other requirements of these regulators can result in imposing fines, restricting operations or closing down the business altogether.

3. The Media

The media comprise print and electronic organizations such as local and international newspapers, television and radio outfits, popular and professional magazines, and the Internet.

These media organizations are always on the lookout to bring to the knowledge of the government and the general public any risk exposures of business entities and above all, reportage of risk occurrences, which may not be in the best interest of companies.

A publication by the print media or coverage of occurrence of operational risk such as the BP oil leakage in the US normally goes a long way to cast negative image about the organization. This is beside the fact that a large quantum of finance will be required to settle and clear such operational fallouts such as cleanup, compensation, payment of charges and sundry expenses for court cases in some instances.

4. The Investors.

The investors are those high networth individuals and companies who have surplus funds to invest with the intent of reaping financial benefits in the future.

Most investors are risk averse because they are not interested in losing their funds. In relation to investment in stock, investors would commit their funds in the shares of companies whose records of managing operational risks are favourable in terms of the measures which they put in place for precluding and mitigating risks.

Therefore, investors would not only be interested in the track record of operational profits based on critical fundamentals of business strength of the quoted companies. The investors will also be interested in the level of risk exposures of the operations of such companies before committing their funds in their shares.

Furthermore, in order not to lose their funds, investors do take appropriate steps to assess the measures put in place by quoted companies to preclude and mitigate their operational risks. This is necessary in order to avoid losing their funds as a result of consequential disruptions to the operations of such companies, which may arise from occurrence of risks.

5. The Banking Industry

Banking business is dependent on the healthy operations of other business particularly the corporate entities. Therefore, banks and other financial institutions will maintain an interest in the fortunes of those organizations to which they have provided funds.

Once banks perceive a particular industry is prone to greater risk such as petroleum industry (both upstream and downstream operations) the cost to be borne by such companies would be very high.

For instance, the BP Company lost a huge quantum of revenue from its operations in the oil spillage in North America as cited before. In addition, it has to spend huge amount of funds for the cleanup, compensation, and restoring its damaged drilling facility to normal operation.

The banks that have financial dealings with the company will, in one or the other, be affected as a result of the huge quantum of funds that was lost from the company's revenue besides funds expended for cleanup, compensation, and restoring its damaged drilling facility.

6. The Capital Market

The Securities and Exchange Commission and the Stock Exchange are in charge of regulating the operations of the capital market in the country. The quoted companies have their shares listed on the Exchange and therefore, they owe the Commission and the Stock Exchange some obligations in reporting any occurrence of risks to their operations in the course of a financial year.

Such reports can affect the prices of the companies' stocks and therefore, both capital market authorities would be interested in the measures being put in place to preclude and mitigate their operational risks. This is necessary in order to avoid the loss of investors' funds as a result of consequential disruptions to the operations of such companies, which may arise from occurrence of risks.

Self Assessment Exercise 3:

Identify the outside stakeholders of a business organization and show how they can be affected by risks in operations.

4.0 CONCLUSION

The analysis in this study unit, as you have understood, indicates that the business stakeholders are also concerned and affected by the risks which the businesses have to contemplate with in the process of their operations. For instance, the various stakeholders recognize that they can lose their stakes in the event that their business entities do not have in place mitigating measures with which to manage risks. Hence, they always have to be monitoring the behavior of the management in the handling of risks in order to be rest assured that their stakes are not jeopardized as a result of the occurrence of risks.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Stakeholders and Business Risks
- Inside Stakeholders and Risk
- Outside Stakeholders and Risk

In the next study unit, you will be taken through the discussion on people's attitude to risk.

6.0 TUTOR – MARKED ASSIGNMENT

Mention the various stakeholders of a business entity and show how they can be affected by risks in business operations.

Solution to Self Assessment Exercises
SAE 1:
The stakeholders of a business comprise the interested parties in the operations of any business entity. These are the people or organizations which could be affected by a risk incident occurring in the organization itself.

Stakeholders of a business include the management, employees, government, labour union, suppliers, customers, the media, insurance companies, regulators, investors, banks, capital market, and other business entities.

SAE 2:

The inside stakeholders of business entities are as follows:
i. The Shareholders

The shareholders of a corporate entity have vested interest in the company because of their investment. The shareholders are exposed to the risk of losing the funds they invest in a company if anything untoward happens to the business. ii. Management as Stakeholder

The management team recognizes the fact that objective of profit maximization can be jeopardized at the instance of occurrence of risk. The occurrence of risk such as fire outbreak in a factory can be accompanied by monumental loss of operational assets and consequence of stoppage of operations. iii. The Employees

The employees of a business entity have vested interest in the operations of the organization. Such interest is informed by their stake in the revenue of the organization because their salaries and allowances come from it. iv. Labour Union

The labour union which represents the collective interest of the workers in a business entity also have vested interest in the operations of the organization. This is because the workers' fate is dependent on the survival of the business. v. The Suppliers

The suppliers of productive materials, in the case of a manufacturing outfit and commercial products in the case of merchandizing business, have stake in the business. This is because the operational fortunes of the business have impact on their patronage and payments for their supplies.
vi. The Distributors

The distributors of products of corporate organizations will be interested in the steady supplies of the products. The occurrence of risks in operations of a manufacturer could disrupt their business operations regarding the inability of the suppliers to make goods available.

vii. Industrial Customers

The industrial users of the products of a company's are major stakeholders in the business because they depend on the suppliers for their productive operations. The users as customers can be affected by any risk which may disrupt the suppliers' operations.

SAE 3:

The outside stakeholders of business are as follows:

i. The Government

Government has vested interest in the operations of corporate bodies doing business within her territory because of the economy. Such posture of government which finds favour in policies and laws is crucial to forestall grave impact of occurrence of operational risk of business operations on the economy. ii. The Regulators

There are business and environment regulators whose actions are geared towards regulating the operations of the businesses to ensure that they conform with laid down best practices in their dealings and protection of the environment. iii. The Media

The media organizations are always on the lookout to bring to the knowledge of the government and the general public any risk exposures of business entities and above all, reportage of risk occurrences, which may not be in the best interest of companies. iv. The Investors.

The investors are those high networth individuals and companies who have surplus funds to invest with the intent of reaping financial benefits in the future. Therefore, they would avoid losing their funds as a result of consequential disruptions to the operations of such companies, which may arise from occurrence of risks. v. The Banking Industry

Banking business is dependent on the healthy operations of other business particularly the corporate entities. Therefore, banks and other financial institutions will loose their funds in the event of risk occurring to the corporate entities which are beneficiaries of their loans.

vi. The Capital Market

The Securities and Exchange Commission and the Stock Exchange are in charge of regulating the operations of the capital market in the country. Both capital market authorities would be interested in the measures being put in place to preclude and mitigate corporate risks so as to avoid the loss of investors' funds as a result of consequential disruptions to the operations of quoted.

7.0 REFERENCES/FURTHER READINGS

Bickechaupt, D. (1974). General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006). Risk Management for Insurance Practice*,* Lagos: Inter Training and Education Services.

Oluoma, R. O. (1999). Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed. New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

- **Further Reading**

Kaye, D. (2004). Risk Management, London: Chartered Insurance Institute.

UNIT 4: PEOPLE'S ATTITUDES TO RISK

CONTENT

1.0 INTRODUCTION

Human beings particularly investors and managers have different attitudes towards risk. These diverse postures towards risks by managers and investors alike are precipitated by the nature of risks, which involves their unpredictability generally, and the inherent consequences or outcomes therein whenever they occur. The diversity of attitudes of business minded people gives rise to various classes of people based on their peculiar attitudes to risks. The focus of this study unit, therefore, is on the discussion of such diverse attitudes to risk.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the objective and subjective elements of risk
- distinguish between risk and uncertainty
- differentiate between objective and subjective risks
- discuss the different attitudes to risk

3.0 MAIN CONTENT

3.1 OBJECTIVE AND SUBJECTIVE ELEMENTS OF RISK

Some events and losses inherent in them can be predicted. This is because such occurrences are common and therefore, can be predicted with certainty. Nevertheless, some other losses are associated with unexpected events and therefore, are not predictable.

For instance, the occurrence of fire outbreak which can consume all the facilities of a business entity cannot be predicted accurately even though there abound some statistical records on their trends particularly for the dry season. Nevertheless, the fire outbreaks that occur during the rainy season defy explanations and prediction. Herein is the basis of variations in risk occurrence.

3.1.1 Objective Element of Risk

Risk is embedded in variation in the possible outcomes in a given scenario regarding a risk. Since the timing of the occurrence of risk is uncertain, uncertainty is often used synonymously with risk. Hence, whenever uncertainty is used in place of risk, it usually implies the objective uncertainty. Such is measurable or quantified because it is used when a measure of variation in occurrences of risk is intended.

A popular measure of variation is the standard deviation. This measure is helpful for use in predicting the expected variation from apparently identical situations which may precipitate different decisions. For example, a manager who is conservative and will always tends to play safe in business decision that many seem quite risk-free to other decision makers.

A condition of risk implies that the decision maker is confronted with a scenario in which the possible results of his decision are not totally predictable. Nevertheless, such outcomes will most likely fall within a possible range of outcomes. Hence, it implies that there could be more than one possible outcomes arising from the choice of an option.

Presumably, the decision maker is understood to know the probability of occurrence of each outcome of his decision. Nonetheless, the decision maker is confronted with the problem of estimating the mathematical probabilities of the occurrence. This problem implies that some errors of estimate or forecast are bound to be involved in the decision maker's prediction.

Basically, there are statistical formulations for determining such errors and measuring them. In fact, the decision maker can make use of his past experience to determine the objective probability and relative frequency of the occurrence of various outcomes. Therefore, measurements could be determined with the support of past experience and available records.

For example, measurements can be determined on such occurrences as seasonal sales figures, cost of production, amount paid as sales commission, quantity of demand in a particular market, population in a segmented market, local authority fees in a geographical area, units of output in production of a product, number of customers for a particular product, etc.

Based on personal perspectives, objective risk which may actually be the same in two scenarios may be viewed very differently by decision makers who are assessing such a risk. Therefore, a decision maker's attitude towards risk is equally very important besides the knowledge of the degree of objective risk which altogether to influence the person's action.

There are some basic features of risk which influence individual's reaction to risk situations that are fundamental ingredients in decision taking toward effective handling of risks.

3.1.2 Subjective Element of Risk

A particular type of event may be of a nature in which it ought to be possible to calculate both the probability and then the potential variation in its outcomes. Nevertheless, there exist some defects in the quality of data available to risk managers which prevent the calculation of reliable objective estimate of future loss probabilities.

The common problems or defects inherent in the calculation of future loss possibilities are as follows:

i) Inadequate large samples of data

This refers to the fact that the available details of past experience are based on only a small number of exposure units), and

ii) Dynamic nature of risk factors

The dynamic nature of risk factors implies that changes are constantly being observed in risk factors. This has cast doubts on the value of past experience as a lead to the future.

In the above circumstances decision makers have no alternative other than to draw on their experience and judgment with which to interpret loss trends to arrive at subjective probability estimates.

The implication is that such probability estimates would differ clearly from the fundamental true probabilities. Basically, it is because the estimator's judgment would be affected by his own attitude to uncertainty.

Hence, it implies that when risk cannot be measured objectively with some reasonable level of degree of accuracy, it would necessitate the use of individual judgment and attitudes in the process.

There appears that there is need for the use of personal judgment and attitudes to estimate the outcomes of risk event; then subjective element of risk will be manifested. Therefore, subjective risk is regarded, for obvious reasons, as the uncertainty inherent or apparent in an event as foreseen by the decision maker.

SELF ASSESSMENT EXERCISE 1
Distinguish between objective and subjective elements of risk.

3.2 INDIVIDUAL ATTITUDES TO RISK

The attitude to risk differs from one individual to another. The stance to risk is a function of individual position in the corporate and investment world. It means that such differing attitudes influence decision making in investment and commitment of corporate funds into projects by investors, financial analysts and managers.

Attitude to risk influences not only the subjective estimates of probability of occurrence of loss but it also affects such individual's decisions in handling risk.

3.2.1 Risk Averters

The risk averters are those individuals who have the attitude of taking appropriate measure to avoid incurring risk or the outcomes of risky events. Therefore, to be risk averse implies that an individual is not willing to stake in excess of the expected return in exchange for some certainty about the future.

For instance, taking an insurance policy and paying the periodic insurance premium involves taking steps to forgo some prosperity in exchange for the insurance company's promise that the covered risk or expected losses will be paid to compensate the insured.

In insurance parlance, some people refer to this approach as an exchange of a certain loss of funds, which involves payment of premium for an uncertain future loss. The critical consideration in the process of the exchange is that the total quantum of premium being paid by the insured is larger than the average or expected loss. This is in view of the fact that insurer expenses and profit are included in the total premium to be paid by the insured.

3.2.2 Risk Seekers

In the opinion of Pritchett, S., et al (1996), an investor or manager who accepts risk at less than the expected average loss, perhaps even paying to add risk such as through gambling is a risk seeker.

One person may be very cautious and averse to taking chances in investment, whereas another may be highly optimistic regarding future uncertain outcomes regarding risky investment. The former in terms of attitude to risk is risk averse, who is likely to arrive at higher loss probability estimates while the latter who is less likely to arrive at higher loss probability estimates is the risk optimist.

Someone who is strongly averse to accepting even the smallest variation in outcomes from the expected may choose to insure. Nevertheless, an individual who is less strongly averse to accepting even the smallest variation in outcomes from the future expectation of loss will be less risk averse individual may be prepared to carry the risk himself. This is the stance of a risk seeker.

3.2.3 Risk Neutrals

Pritchett, S. et al (1996) posit that a person willing only to pay the average loss as a premium would be considered risk neutral. It means that such individuals are not ready to assume risk and at the same time not prepared to stake more than necessary in preventing risk or transferring the loss to an insurance company.

The pertinent issue at this juncture is: what makes one person to be more risk averse than another? This issue borders on the realm of psychology or sociology, or anthropology. Nevertheless, it can be assumed that factors such as family and societal influences, genetics, religious and philosophical beliefs all play an important role.

SELF ASSESSMENT EXERCISE 2

Differentiate between risk aversion and risk neutral.

3.3 RELATIONSHIP BETWEEN RISK AVERSION AND NCERTAINTY

To some extent, there is some ambiguity in the relationship between a person’s risk aversion and his uncertainty. A problem arises as a result of the imprecise way the twin terms aversion and uncertainty are commonly used. Nevertheless, in some respects, uncertainty could be affected by aversion.

For example, a decision maker might be so distrustful of risk in general that he/she would tend to disregard his/her own judgment regarding a particular risk might be driven higher by her/his aversion to risk.

In some other scenarios, it is possible to say that uncertainty influences aversion. This is because a person who is consistently exposed to an environment of seemingly random and unpredictable events such as typhoon or tornado might eventually develop a high level of aversion to risk. (Williams, Smith and Young, 1995:7).

Some writers have taken a different perspective in relating risk, risk aversion and uncertainty to one another. In their own view, William and Heins (1989) regard risk as consisting of objective and subjective components. According to them, objective risk refers to the measurable component of risk, while subjective risks reflect an individual reaction to or attitude towards risk.

On the basis of above approach, uncertainty becomes an aspect of subjective risk. Basically, there are other views and perhaps the best that can be discerned is that risk aversion and uncertainty are distinct concepts that are not fully independent of one another. (Williams, Smith and Young, 1995)

SELF ASSESSMENT EXERCISE 3
Briefly explain the relationship between risk aversion and uncertainty.

4.0 CONCLUSION

Some risk events and their losses can be predicted because such occurrences are common and therefore, can be predicted with certainty. However, some losses are associated with unexpected events and therefore, cannot be predicted. The attitude to risk differs from one individual to another. The different postures towards risk by individuals influence decision making in investment and commitment of corporate funds into projects by investors, financial analysts and managers. Hence, there are individuals who are risk averters while others are risk seekers and yet there are risk neutrals.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Objective Element of Risk
- Subjective Element of Risk
- Individual Attitudes to Risk
- Relationship between Risk Aversion & Uncertainty

In the next unit, you will be taken through the discussion on costs associated with risk.

6.0 TUTOR-MARKED ASSIGNMENT

Explain these terms: Subject Risk; Objective Risk; Risk Aversion; and Risk Neutral.

Solution to Self Assessment Exercises

SAE 1:

Objective element of risk arises when the decision maker makes use of his past experience and available statistical records to determine the objective probability and relative frequency of the occurrence of various outcomes.

On the other hand, subjective element of risk implies that when risk cannot be measured objectively with some reasonable level of degree of accuracy, personal judgment and attitudes of decision maker will be used to estimate the outcomes of risk event

SAE 2:

Risk aversion implies that those individuals involved have the attitude of taking appropriate measure to avoid incurring risk or the outcomes of risky events. This presupposes that to be risk averse an individual is not willing to stake in excess of the expected return in exchange for some certainty about the future.

Risk neutrals refer to persons who are only willing to pay the average loss as a premium because such individuals are not ready to assume risk and at the same time not prepared to stake more than necessary in preventing risk or transferring the loss to an insurance company.

SAE 3:

The uncertainty element of risk influences aversion because a person who is consistently exposed to an environment characterized by seemingly random and unpredictable events such as typhoon or tornado might eventually develop a high level of aversion to risk.

7.0 REFERENCES/FURTHER READINGS

Bickechaupt, D. (1974). General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006). Risk Management for Insurance Practice*,* Lagos: Inter Training and Education Services.

Oluoma, R. O. (1999). Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed. New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

- **Further Reading**

Kaye, D. (2004). Risk Management, London*:* Chartered Insurance Institute.

UNIT 5: COSTS ASSOCIATED WITH RISK

CONTENTS

1.0 INTRODUCTION

There are costs that embedded in all forms of risk. This is given the fact that the occurrence of any risk in the operations of any business entity portends some costs and losses which have to be borne by the organization. Some of these costs are inherent in the nature of the risk while some others are normally borne by the organizations in form of compensations and damages to the operational facilities of the organizations. Furthermore, the communities in which various organizations operate also bear some costs from the occurrence of risk in the activities of such organizations. In this study unit, therefore, the various costs that are associated with risks are identified and discussed.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- mention costs associated with the nature of risk
- differentiate between private and social costs in risk
- identify various forms of losses inherent in risk

3.0 MAIN CONTENT

3.1 COSTS ASSOCIATED WITH RISK

Costs associated with risk refer to the obvious implications or consequences of occurrence of risk in organizational operations. The costs which are inherent in nature of risk and its sharing among organizational stakeholders are discussed below.

The various costs of risk are in various categories which are identified and discussed below.

3.1.1 Costs in Nature of Risk

The various costs inherent in the nature of risk consist of; risk handling costs, costs of losses that occur, and costs due to the existence of risk.

1. Risk Handling Costs

These handling costs in risk are in the areas such as follows:

i) Costs involved in identifying, evaluating and treating risks
ii) Insurance premiums
iii) Charges for loss prevention devices
iv) Fees for consultancy service
v) Opportunity costs in terms of management and staff time spent on dealing with risks, which cannot be devoted to other activities.
vi) The costs of avoiding a risk may be a loss of revenue derived from the particular activity involved.

2. Costs of Losses Arising from Risk

These costs arise as a result of the occurrence of risk in the organizational operation, and they are as follows:

i) Direct costs to a firm

These elements of cost in risk from industrial accidents can arise as a result of the following:

- Compensation payable to injured employees
- Damage to machinery, equipment and work in progress
- Loss of production
- Accident investigation expenses.

ii) Indirect costs

These elements of cost in risk can arise as a result of the following:

- Other employees may either stop work for a short time or their work rate may slow down from occurrence of risk
- Decreased morale of workers from occurrence of risk
- Consequent drop in productivity and increase in spoilt materials from occurrence of risk
- Loss of future earnings from occurrence of risk.

3. Costs Attributable to the Existence of Risk

These elements of cost in risk do arise due to the following reasons:

- Welfare loss:- exposure to risk involves a welfare loss suffered by those exposed to risk, e.g., to a risk averter.

- Externality of risk:- this refers to indirect costs which are borne by the rest of the society as a result of occurrence of risk.

In the event that the potential losses from occurrence of risk are so critical that the firm involved cannot produce its particular product, the consumers will be deprived of the satisfaction they would have derived from its consumption. In addition, other stakeholders would lose their stakes in the company.

SELF ASSESSMENT EXERCISE 1

Identify the forms of cost associated with losses arising from risk.

3.1.2 Private and Social Costs Inherent in Risk

The costs being shared among some individuals and groups in the society are private costs and social costs. Private costs are costs necessarily incurred from the occurrence of risk by the individual or firm which is affected by the outcomes of the risk. The community in which a company operates bears some costs from its operational activities; such burden constitutes the social costs.

For instance, in the process of production, the company can discharge untreated pollutants such as effluents into the community source of water supply coupled with smoke discharged into the air from the factory. Such pollution constitutes the private costs of the company’s operations on the community.

In many countries, the company may be compelled by law to spend some money for cleanup of the above pollution in the community in addition to sundry expense on the pollution. Such costs will appear in the company’s accounts as a part of its private costs. Hence, this involves obeying government regulations requiring that firms be financially responsible for all the consequences of their actions.

Both private and social costs may be inherent in many pure risks. A major fire incident may render a factory inoperative and as a result necessitate loss of employment by the workers besides the loss borne by some other stakeholders.

The company involved could be compelled to bear part of these social costs such as redundancy payments to workers and payment of compensation to some third parties for personal injury or damage to their property.

Furthermore, an explosion from a factory producing explosives may cause extensive damage to surrounding properties and injuries to members of the public. Another example is a leakage of contaminated sludge from a factory polluting the surrounding land and river depriving the community of their source of livelihood and water supply.

In the latter case above, the company would be compelled to expend some funds on cleanup of the land and the river of the deadly sludge. In both cases, payment of compensation would also be borne by the companies for the affected members of the public on for their injuries and damaged property and on the damaged farmlands respectively.

The above cases involve both private and social costs borne by the companies and the communities alike. In line with best practices in organizational operations, the companies in the absence of legal obligation to compensate injured third party, may feel morally duty-bound to offer some payment to the communities and individuals affected by the risk

SELF ASSESSMENT EXERCISE 2

Differentiate between private cost and social cost in relation to risk.

3.2 LOSSES ARISING FROM RISK

The undesirable outcome of risk involves an economic loss. This is because there are some benefits which are associated with some forms of risk.

The undesirable end result of risk signifies some loss of benefits which would have accrued from the use of a property. Such undesirable element of risk involves the decrease or disappearance of value.

The undesirable end of risk is usually in an unexpected or at least relatively unpredictable manner. Since it is associated with risk, the outcome which is not desirable would be unpredicted in pecuniary magnitude as well as in the extent of its impact.

There are, however, some other losses which can be expected in nature. This is due to the fact that they are known to always occur. Examples are death which terminates a breadwinner's life, collateral damage resulting from conflict, depreciation of physical properties, etc.

The above examples of loss are capable of being predicted by decision makers fairly accurately. This is necessary because in the case of depreciation, the mere fact that it occurs to a capital asset prepares the minds of accountants to set aside some funds for their replacement.

In the case of death, the insurance company encourages people to insure their lives against such expected loss; in order to use the proceeds of such policy to cater for their dependents after its occurrence.

Nevertheless, as observed by Bickechaupt (1974), many losses cannot be predicted as a result of risk. Examples of such losses include:

- loss of property due to fire,
- loss of vehicle because of theft, and
- loss of valuables because of other perils.

Some other losses include:

- loss of income due to property destruction,
- loss of job due to personal perils of disability and illness,
- increased medical costs due to terminal illness, and
- loss of assets due to legal liability for losses affecting other persons.

SELF ASSESSMENT EXERCISE 3

Mention losses that are associated with occurrence of risk.

4.0 CONCLUSION

You have appreciated from the discussion in this study unit that risk has some cost implications for the operations of all organizations. Such costs include risk handling costs, costs of losses from risk, and costs attributable to the existence of risk. There are also private and social forms of costs inherent in occurrence of risk in operations of corporate entities. As you have understood from the discussion, some causes of risk include perils and hazards which do aggravate the occurrence of risks to both human beings and corporate entities. Some losses are also inherent in the occurrence of risk such as loss of property, loss of vehicle, loss of valuables, loss of income, loss of job, increased medical costs due to terminal illness, and loss of assets.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Costs in Nature of Risk
- Private & Social Costs Inherent in Risk
- Losses Arising from Risk

In the next unit, you will be taken through the discussion on the causes of risk.

6.0 TUTOR-MARKED ASSIGNMENT

What are the various costs that are inherent in the nature of risk?

Solution to Self Assessment Exercises

SAE 1:

The various costs inherent in the nature of risk consist of the following

i) Risk handling costs:- these handling costs in risk are in the areas of costs involved in identifying, evaluating and treating risks; insurance premiums; charges for loss prevention devices; fees for consultancy service; opportunity costs in terms of management and staff time spent on dealing with risks, which cannot be devoted to other activities; and costs of avoiding a risk may be a loss of revenue derived from the particular activity involved.

ii) Costs of Losses arising from risk:- these costs occur from risk in organizational operation, which are: compensation payable to injured employees; damage to machinery, equipment and work in progress; loss of production; and accident investigation expenses (all regarded as direct costs); and stoppage of work; decreased morale of workers; consequent drop in productivity; increase in spoilt materials; and loss of future earnings from occurrence of risk (all as indirect costs).

iii) Costs Attributable to the Existence of Risk:- these elements of cost in risk arise from welfare loss suffered by those exposed to risk and externality of risk as indirect costs borne by the rest of the society as a result of occurrence of risk.

SAE 2:

Private costs are costs incurred from the occurrence of risk by the individual or firm which is affected by the outcomes of the risk. In a case of pollution of the environment, the company would be compelled to expend some funds on cleanup of the land and the river of the deadly sludge in addition to payments to the affected members of the public damaged property and farmlands.

Social cost in risk arises when the community in which a company operates bears some costs from its operational activities. An example is a leakage of contaminated sludge from a factory polluting the surrounding land and river depriving the community of their source of livelihood and water supply.

SAE 3:
Losses that are associated with occurrence of risk are as follows:

- loss of property due to fire,

- loss of vehicle because of theft, and
- loss of valuables because of other perils.
- loss of income due to property destruction,
- loss of job due to personal perils of disability and illness,
- increased medical costs due to terminal illness, and
- loss of assets due to legal liability for losses affecting other persons.

7.0 REFERENCES/FURTHER READINGS

Bickechaupt, D. (1974). General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006). Risk Management for Insurance Practice*,* Lagos: Inter Training and Education Services.

Oluoma, R. O. (1999). Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed. New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

- **Further Reading**

Kaye, D. (2004). Risk Management, London*:* Chartered Insurance Institute.

UNIT 6: CAUSES OF RISKS

CONTENTS

1.0 INTRODUCTION

All forms of risk do not just occur in the operations of any business entity. The occurrence of any risk is normally precipitated by some factors. Basically, risk takes place because of some factors which are associated with the nature of the operations, behavior of the workers, types of facilities in use in the business, the behavior of the parties dealing with the business, and above all, the upheavals of the external environment. Therefore, in this study unit, various causes of risk are identified and discussed.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- mention and explain various causes of risk
- identify perils in business operations
- identify hazards in business operations
- mention uncertainties in business

3.0 MAIN CONTENT

3.1 SOME CAUSES OF RISK

There are some causes which can precipitate risk to take place. Such causes are inherent in the human nature, environmental conditions, and mechanical operations. Such causes of risk are identified and discussed below.

1. Inadequate Cash Flow

This arises when the management in the case of large entities or business owner in the case of small businesses does not monitor closely the expenses and accounting records of the operations. The result is that the flow of cash into the business will be jeopardized.

The cash flow problem can also arise when customers are not purchasing products or patronizing the services of the business. The internal problem such as lack of planning ahead for contingencies can also precipitates cash flow deficiency. Therefore, it is advisable that a business owner should have three months of operating expenses kept away in savings with which to keep the operations afloat in lean periods.

2. Labour Unrest

Labour problem can precipitate risk in the operations of a business entity. In the event of labour, unrest which can emanate from disagreement between the management and labour, operations or production will suffer and therefore, the business will incur abnormal loss. The labour unrest can take the form of strike, stoppage, work to rule, and picketing, among others.

For instance, the British Airways has gone through a long period of labour unrest in recent years. The consequences of such labour unrest include loss of revenue, loss of market share, etc. In Nigeria, the labour unrest has always been led by the Nigeria Labour Congress (NLC) on issues concerning fuel price increase, national minimum wage, etc. The consequences include loss of valuable man hours, decrease in economic output, disruptions in socio-economic operations, etc.

3. Weak Internal Controls

When corporate entities do not have sound financial and accounting policies, the result is weak internal controls. This is because in the absence of such policies, there would be no meaningful checks and balances in the operations of the entities, and the result will be loss of revenue, weak cash flow, frauds, embezzlement, and other related problems.

4. Weak Corporate Governance

The absence of good governance in the operations of an entity is indicative of the fact the best practices of corporate governance issues are not being observed by the management, the board of directors and the chief executive officer of such organization. Therefore, in such situation, the normal operational protocol will be breached in the management of the funds of the organization. This results in fraudulent practices, embezzlements, bad debts, illiquidity, and financial distress, etc.

5. Investment in Risky Ventures

Some funds of an organization may be invested in risky ventures such as speculative businesses to the extent that it becomes difficult to recover such funds in the event that the business goes awry. Examples are the loans advanced by the banks to the capital operators which invariably became lost to the vagaries of the speculative market. Such marginal loans became toxic assets in the books of the banks, which partly precipitated their weakness and financial distress.

6. Operations in Volatile Environment

Investments and operations in volatile environment can precipitate risk in the business. Investment and operations in politically unstable environment can lead to the loss of funds and at times the whole investment will be wiped off by socio-political uprising.

7. Poor Planning

Poor planning can lead to what is called one-dimensional thinking which can lead to the risk of sinking the operations of the business. For instance, lack of creative ways towards attracting customers, by the business owners, in the face of fierce competition can sink a business.

SELF ASSESSMENT EXERCISE 1

Mention and explain some causes of risk in business operations.

3.2 PERILS IN BUSINESS OPERATIONS

Peril is regarded as a major cause of risk. Forms of peril in relation to risk include the following:

- fire,
- automobile accidents,
- thefts,
- earthquakes,
- windstorms,
- flood, and
- illness, etc.

According to the law, perils are regarded as "acts of God" in relation to those perils operating without human agency or intervention and not preventable by human foresight or care.

For example, fire outbreaks precipitated by lightening are often regarded as an act of God because human beings cannot cause lightings to take place. Other examples of acts of God include:

- storms,
- floods,
- typhoon,

- tornados,
- Tsunamis, and
- other grave dictates of nature.

The above upheavals of nature indicate that such causes of risk come in various forms and the magnitude of their impact on business operations also vary considerably.

SELF ASSESSMENT EXERCISE 2

What are the forms of peril in relation to risk?

3.3 HAZARDS IN BUSINESS OPERATIONS

Hazards are the various contributing factors to the occurrence of perils. Generally, there are many separate hazards that are associated with any particular object or person. The sum total of hazards normally constitutes perils which can precipitate a particular risk.

In insurance parlance or business hazards are categorized into physicals hazards and moral hazards. These classes of hazards are discussed below.

i) Physical Hazards:

Physical hazards refer to the tangible conditions or characteristics of the risk that influence the frequency and or severity of loss inherent in a risk.

These tangible or physical conditions of risk include considerations such as:

a) location,
b) structure,
c) construction,
d) occupancy,
e) security protection, and
f) exposure, etc.

Particularly, physical hazards include conditions such as:

a) waste paper piled under a staircase gasoline stored on the premises;
b) weak construction which may fail in a heavy wind;
c) unsafe brakes on a car;
d) holes in a sidewalk;
e) inadequate inventory checks in a store;
f) improper water drainage systems, etc.

The factors as highlighted above are individually capable of increasing the chances of a loss occurring in respect of a specific peril such as fire, wind, flood, theft, etc.

ii) Moral Hazards:

Moral hazard is used in reference to those factors that have their origin embedded in mental attitudes of human aspects that may influence the outcome of risk.

This concerns hazards precipitated by:

- dishonesty,
- insanity,
- carelessness,
- indifference, etc.

The above list is by no means exhaustive. Hence, there are other similar human attitudes that are psychological in nature.

In drawing distinction between moral and morale, Pritchett et al (1996) observe that moral hazards involve dishonesty on the part of insured. In the context of insurance, moral hazards refer to conditions that encourage the insured to cause losses intentionally. Basically, moral hazards exist when a person can gain from the occurrence of a loss.

For example, an insured person who will be reimbursed for the cost of a new car due to the loss of an old one has the motivation of causing loss to the car. This fraudulent incentive on the part of the insured increases the probability of loss.

Morale hazards, in contrast, do not involve dishonestly on the part of the insured. To a certain extent, morale hazards are attitudes of carelessness and lack of concern that can increase the chance a loss will occur or increase the size of losses that do occur. (Pritchett et al, 1996).

For instance, poor housekeeping such as allowing waste papers to accumulate in the attic or basement of a building and the occupant is in the habit of careless cigarette smoking are examples of moral\morale hazards that increase the probability of loss by fire. Frequently, such lack of concern on the part of human beings occurs due to the fact that an insurer is available to pay for losses as there will be reimbursement to return the insured to his position.

Nevertheless, Pritchett et al pointed out that the distinction between moral and morale hazards is finicky, and usually their existence may lead to physical hazards. But they also remarked that hazards are critical characteristics to analyze because people's ability to reduce their effect will reduce both overall costs and variability. Hence, Management of hazards can constitute a highly effective risk management tool.

SELF ASSESSMENT EXERCISE 3

What are the forms of hazards in relation to risk?

3.4 UNCERTAINTIES IN BUSINESS OPERATIONS

There are some uncertainties in the environment of all business entities that make their operations generally risky. Such threats to business operations are identified and discuss below.

1. Political

This involves issues such as guerilla war against the state, revolution, changes in government (through elections or coup d' etat), and political turmoil.

2. Government Policy

This refers to issues such as fiscal and monetary reforms, price controls, trade restrictions, nationalization, economic regulation, barriers to earnings repatriation, etc.

3. Macroeconomic

This is in areas such as inflationary trend, changes in relative prices, fluctuation in foreign exchange rates, and depreciation in terms of trade, etc.

4. Socio-cultural

This is in areas such as changing social concerns, social unrest, riots, demonstrations, terrorist attacks, militant movement, social dissension, etc.

5. Geographical

This is in areas such as variation in rainfall, change in climatic conditions, and problems of drought and desertification.

6. Input Market

This is in areas such as uncertainty in quality of supplies, shifts in market supply, changes in prices of supplies, inordinate behavior of suppliers, etc.

7. Product Market

This concerns changes in consumer tastes, availability of close substitutes, scarcity of complimentary goods, changes in prices of substitutes, etc.

8. Competition

This concerns rivalry among existing competitors, new entrants, technological uncertainty in relation to product innovations and process innovations.

9. Operations

This concerns input supply uncertainty, raw material shortage, quality changes, spare parts restrictions, machine failures, power failure, production disruptions, etc.

10. Liability

This concerns product liability, liability to the community as a result of pollution, liability to employees resulting from industrial accidents, liability to other people because of damages to their property, etc.

4.0 CONCLUSION

You have appreciated from the discussion in this study unit that risk can be caused by various factors. Some of these factors that can impact negatively on the operations of business entities are embedded in the activities of the companies while some other ones are associated with outside environment. There are factors which can aggravate the occurrence of risk in the operations of business entities, which as identified include perils and hazards that their activities are exposed to.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Some Causes of Risk
- Perils in Business Operations
- Hazards in Business Operations
- Uncertainties in Business Operations

In the next unit, you will be taken through the discussion on the scope and benefits of risk management

6.0 TUTOR-MARKED ASSIGNMENT

Mention and explain the uncertainties in the environment of all business entities that make their operations generally risky.

Solution to Self Assessment Exercises

SAE 1:

Some causes of risk in business operations include the following.
i) Inadequate Cash Flow
This arises when the management or business owner does not monitor closely the expenses and accounting records of the operations. ii) Labour Unrest

Labour problem can precipitate risk in the operations of a business entity. The labour unrest can take the form of strike, stoppage, work to rule, and picketing, among others.
iii) Weak Internal Controls
When corporate entities do not have sound financial and accounting policies, the result is weak internal control that leads to loss of revenue, weak cash flow, frauds, embezzlement, and other related problems.
iv) Weak Corporate Governance
The absence of good governance in the operations of an entity leads to fraudulent practices, embezzlements, bad debts, illiquidity, and financial distress, etc. v) Investment in Risky Ventures
Funds invested in risky ventures such as speculative business would become difficult to recover such funds in the event that the business goes awry. vi) Operations in Volatile Environment
Investment and operations in politically unstable environment can lead to the loss of funds and at times the whole investment will be wiped off by socio-political uprising. vii) Poor Planning
Poor planning can lead to what is called one-dimensional thinking which can lead to the risk of sinking the operations of the business.

SAE 2:
Forms of peril in relation to risk include the following:

- fire,
- automobile accidents,
- thefts,
- earthquakes,
- windstorms,
- flood, and
- illness, etc.

SAE 3:

Forms of hazards in relation to risk include the following:

- location,
- structure,
- construction,
- occupancy,
- security protection,
- exposure,
- dishonesty,
- insanity,
- carelessness,
- indifference.

7.0 REFERENCES/FURTHER READINGS

Bickechaupt, D. (1974). General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006). Risk Management for Insurance Practice, Lagos: Inter Training and Education Services.

Oluoma, R. O. (1999). Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed. New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

- **Further Reading**

Kaye, D. (2004). Risk Management, London: Chartered Insurance Institute.

UNIT 7: SCOPE & BENEFITS OF RISK MANAGEMENT

CONTENTS

1.0 INTRODUCTION

Risk management is very significant to the operations of any business entity due to the grave consequences that the occurrence of risk portends. It implies that for a business organization to be rest assured of the achievement of its objectives besides survival and growth, risk management becomes imperative. In this study unit, we shall discuss the nature, scope and benefits of risk management.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the realm of risk management
- discuss the nature of risk management
- explain the scope of risk management
- discuss the importance of risk management
- identify the benefits of risk management
- explain risk communication

3.0 MAIN CONTENT

3.1 REALM OF RISK MANAGEMENT

The operations of business entities involve taking risks, tackling problems and utilizing resources with minimum friction in order to achieve optimal results in terms of returns on investment. The interplay of the key variables such as 'taking risk', tackling problems, 'utilizing resources', 'minimum friction', and 'optimal result' involves are interactions of human and material resources and the external forces. (Ogunlana, 1995).

Such external forces confronting the corporate entities include the general economic situation, local competition and the international environment. These interactions engender friction, generate problems and above all, taking of risks on the part of the management. Hence, the ability to overcome the effects of the resulting friction, tackling the problems arising and combating the inherent risks, makes all the difference in the return to operations as achieved by a business enterprise. (Ogunlana, 1995).

There are varied views regarding what management of risk entails. Such views are posited based on various considerations like the leanings, knowledge and experience of managers.

According to the insurance manager, risk management involves the practice of examining the cost-effectiveness of insurance protection. In the perspective of the production manager, risk management may represent a technique for coping with effects of changes. In the case of the cost accountant, risk management may be regarded as a method of arranging self insurance.

The opinions of other people connected to risk management such as loss control and accident prevention officer within an organization will differ from the views highlighted above. According to Ogunlana (1995), risk management is not safety audit; it is not self insurance; it is not accident prevention; it is not loss control. It is a combination of all these factors and many more.

Risk management also encompasses the political, technical, marketing and labour aspects of risk. As opined by Ogunlana (1995), risk management can be described as "the identification, measurement, and economic control of risk that threaten the assets and earning of a business or enterprise".

In the same vein, Bickelhaupt (1974) posited that risk management involves a management process aimed at 'the effective reduction of the adverse effects of risk'.

Harold (1987) observes that risk management can also be described as 'the process by which any unexpected loss contingency is managed'.

From above, and in broad terms, risk management can be related to a mechanism which embraces planning, organizing, evaluating and controlling resources and operational activities of business for effective reduction or elimination of risk or the adverse effects of risks. Since human beings are mere mortals, risk management can also apply to their lives.

SELF ASSESSMENT EXERCISE 1

Highlight the various views on the meaning of risk management.

3.2 NATURE OF RISK MANAGEMENT

The environment and operations of business organizations are characterized by upheavals and uncertainties to the extent that such odds may and could hinder or prevent the business entities from achieving their predetermined objectives.

Inherent in grave environmental dynamics of business entities is the fact that they are not predictable. Since they are shrouded in uncertainty which aggravates the occurrence of risk, they elicit the concern of the business world generally.

In broad based perspective, risk management is said to embrace all the techniques or strategies involved in reducing or minimizing the impact of uncertain loss or events that aggravate risk.

This is imperative towards sustaining the survival of business entities as well as enhancing the achievement of their corporate goals or objectives. It is, therefore, imperative that corporate organizations should take appropriate measures towards handling environmental and operational risks.

Risk management is viewed as a multi-disciplinary function. Hence, it is all embracing in the explicit or implicit actions taken by house wives, farmers, and artisans to the corporate managers. Such actions involve consciously putting a risk management process in place to mitigate disasters such injuries, incapacitation, and even death.

For instance, a mother who is safety conscious can dissuade her restless baby from engaging in a potentially harmful play in order to protect the baby from harm. This involves management of risk. An individual can also observe the traditional methods of managing risk like staying at home after dark, walking along well-lit streets at night thus avoiding dark alleys. (Wilcox, 1996).

Relatedly, as observed by Soludo (2006), in recent times, approaches to risk have apparently changed across organizations. This involves the recognition by many business leaders that risks are no longer mere hazards to be avoided but they also, in many cases, constitute opportunities to be embraced. Soludo (2006) cited the chief risk officer of Royal Bank of Canada who observed that, "risk itself is not bad. What is bad is risk that is mismanaged, misunderstood, mispriced, or unintended".

Basically therefore, risk management transcends:

- the traditional method of risk mitigation by means of controls to limit exposure problems;
- using risk portfolio optimization through determination of the organization's risk appetite and capacity against risks across the enterprise; and
- seizing opportunities within some defined parameters by organizations and capitalizing on the rewards that result.

Hence, risk management is being viewed as a strategic task in organizational operations that requires the attention of well trained professionals that can handle all forms of risks.

SELF ASSESSMENT EXERCISE 2

Give reasons which necessitate risk management.

3.3 SCOPE OF RISK MANAGEMENT

There are mainly two schools of thought which have emerged in relation to the scope of risk management. The first school of thought posits that risk management is applicable only to pure risks. The second school of thought holds the view that risk management transcends the realm of pure risk. Hence, this school of thought recognizes that risk management encircles both pure risk and speculative risk.

Some writers' and practitioners take a far narrower perception on the need for risk management. Their views border on restricted form which embraces little more than formulation and administration of insurance programmes for dealing with pure risks.

The logical inference from above is that a firm's insurance manager may be responsible for executing the insurance programmes decided by top management such as buying of insurance policy and handling of claims. On the other hand, a risk manager would have the responsibility of identifying and analyzing risks and advising management on the appropriate insurance programmes. (Chattered Insurance Institute, 1985).

The consensus among authorities is that risk management transcends just pure risk management, but it includes speculative risk. Describing the scope of risk management becomes difficult partly because in practice, the role ascribed to the risk manager is limited to handling certain aspects of the risk management process.

Besides the controversy on whether risk management encompasses business (speculative) risk and pure risk, there are other considerations.

Basically, the management of pure risk involves two broad areas: physical and financial controls and cost organizations confine the authority of the risk manager to the area of financial control.

According to the Chartered Insurance Institute (1985), there is little room for argument about the applicability of risk management concepts and principles to all types of risk. Marketing, production, financial and other business risks need to be identified, quantified, and controlled in just the same way as pure risk can be managed. Nevertheless, in practical terms, each type of business risk involves the use of very different areas of knowledge and skills, and every large organization makes use of professional staff to deal with those risks as part of their specialist management functions.

An individual cannot possess the breadth of knowledge and skill with which to assume responsibility for controlling and advising top management on every type of risk. However, risk handling decisions are not be undertaken on different bases in the various parts of an organization.

The top management should see to it that there is an agreed risk policy that deals with issues such as loss tolerance limits which is incorporated in the overall corporate plan.

SELF ASSESSMENT EXERCISE 3

Differentiate between the responsibilities of insurance manager and risk manager.

3.4 IMPORTANCE AND BENEFITS OF RISK MANAGEMENT

3.4.1 Importance of Risks Management

According to Kpodo (1989), risk management is critical in a developing economy. There are obvious reasons which inform this view. Such reasons advanced by Kpodo are discussed below.

One: the reason is purely on economic grounds. The financial waste caused by risk is considerable. For example, there is the fire waste, employer's and public liability losses, motor accidents and host of loss producing incidents.

It is comparatively simple to calculate the quantum of funds being spent on each of these incidents through claim payments or losses financed directly by corporate entities. However, what is more difficult to determine is the overall economic waste.

Industrial accident resulting in payment of employer's liability claim can also involves lost production time, possible need for retraining, dampening of workers' morale, and possibility of lost time by other workers for attending to hearings. Therefore, the totality of wastes goes beyond the claim figure.

Two: risk management is imperative towards minimizing the social consequences of risk. For instance, there is the significant need to adopt risk management in order to guide against untold hardships that dependents suffer when a worker loses his life is disabled as a result of industrial accident.

The view is that by instituting risk management, corporate entities are invariably protecting the family system since difficulties occasioned by the death or disability of breadwinners may lead to the breakdown of the basic unit of society.

3.4.2 Benefits of Risk Management

According to Kpodo (1989), the inherent benefits of risk management to developing economies can be analyzed as follows:

1. The Business Entities

i) An effective risk management strategy does help to improve effective use of capital.

ii) It would reduce long term production cost and improving the price competitiveness of a company's products or services.

iii) Reduction in the cost of insurance;
iv) Improved credit status of the business; and

v) Reducing the effect of disasters, e.g., fire, storm, etc, that would be potentially crippling to the enterprise.

2. The National Economy

i) The benefits accruing to the various business entities would invariably enhance the positive development of the national economy.

ii) The benefit of improving the competitiveness of domestic product in relation to those of industrialized countries would ensure a positive balance of payment position of the economy.

iii) The tremendous earnings of foreign exchange would accrue from the exports of the economy, and thereby reduce its dependence on foreign goods.

iv) Efficient risk management would reduce wastage in relation to damage and destruction of plants and equipment.

v) It allows for conserving foreign exchange which would have been spent on plants, machinery and equipment for their replacement as a result of damage.

vi) The domestic insurance industry will be able to redirect its capacity to potentially large losses as against paying for smaller losses.

3. The Individual Workers

i) The entrenchment of safety regulation in risk management would reduce industrial and work related injuries and illnesses.

ii) Risk management would result in higher productivity of the work force because of the reduction of industrial tension, and the provision of conducive working environment.

iii) Higher productivity of the work force will in turn increase the gross national product of the economy.

iv) The individual workers are guaranteed a tranquility of mind and his needs, wants and aspirations because pains, sickness, injury and property loss associated with operational risks are reduced to bearable limits.

3.5 RISK COMMUNICATION

Risk communication (Covello and Allen, 1988) is a complex task which calls for the involvement and collaboration of the public with organization in management of risk crisis.

There are some problems inherent in risk communication such as how to:

- reach the intended audience;
- make the risk comprehensible and relatable to other risks;
- pay appropriate respect to the audience's values related to the risk; and
- predict the audience's response to the communication, etc.

A main goal of risk communication is to enhance collective and individual decision making concerning risks. Risk communication is somewhat related to crisis communication.

According to Covello and Allen (1988), the seven cardinal rules for the practice of risk communication are highlighted below.

- Accept and involve the public and other stakeholders such as consumers as legitimate partners.
- Plan carefully and evaluate your efforts with a focus on your strengths, weaknesses, opportunities, and threats.
- Listen to the public's specific concerns.
- Be honest, frank, and open.
- Coordinate and collaborate with other credible sources.
- Meet the needs of the media.
- Speak clearly and with compassion.

SELF ASSESSMENT EXERCISE 3

What are the seven cardinal rules for the practice of risk communication?

4.0 CONCLUSION

From the discussion in this study unit, you have understood that risk management refers to a mechanism which incorporates planning, organizing, evaluating and controlling resources and operational activities of business for effective reduction or elimination of risk or the adverse effects of risks. It involves the management of both pure risk and speculative risk. As you have appreciated from the discussion, risk management involves using risk portfolio optimization against risks across the enterprise, and seizing opportunities within some defined parameters by organizations and capitalizing on the rewards that result. Hence, risk management is very critical to organizations.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Realm of Risk Management
- Nature of Risk Management
- Scope of Risk Management
- Importance of Risk Management
- Benefits of Risk Management
- Risk Communication

In the next unit, you will be taken through the discussion on the process of risk management.

6.0 TUTOR-MARKED ASSIGNMENT

What are the benefits of risk management to the organization?

Solution to Self Assessment Exercises

SAE 1:

To the insurance manager: risk management involves the practice of examining the cost-effectiveness of insurance protection.

To the production manager: risk management may represent a technique for coping with effects of changes.

To the cost accountant: risk management may be regarded as a method of arranging self insurance.

SAE 2:

Reasons which necessitate risk management include the following.

i) The environment and operations of business organizations are characterized by upheavals and uncertainties.

ii) To guide against operational odds that could prevent the business entities from achieving their predetermined objectives.

iii) Grave environmental dynamics of business are shrouded in uncertainty which aggravates the occurrence of risk. Therefore, they elicit the concern of the business world generally.

iv) Risk management is necessary for minimizing the impact of uncertain loss or events that aggravate risk in business.

v) It is critical towards sustaining the survival of business entities and enhancing the achievement of their corporate goals or objectives.

vi) Risk management is imperative towards mitigating disasters such injuries, incapacitation, and even death.

vii) Risk management calls for adopting for risk mitigation by means of controls to limit exposure problems.

viii) Risk management involves using risk portfolio optimization on organization's risk appetite and capacity against risks across the enterprise.

ix) Risk management also involves seizing opportunities within some defined parameters by organizations and capitalizing on the rewards that result.

x) Risk management is also necessary towards recognizing it as a strategic task in organizational operations and use of professionals to handle all forms of risks.

SAE 3:

On one hand, insurance manager may be responsible for executing the insurance programmes decided by top management such as buying of insurance policy and handling of claims.

On the other hand, a risk manager would have the responsibility of identifying and analyzing risks and advising management on the appropriate insurance programmes.

7.0 REFERENCES/FURTHER READINGS

Adekunle, H. (1995). "*Risk Management Practice and Insurance Surveying*" NICON Risk Management and Survey Co. Ltd, September.

Bickechaupt, D. (1974). General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006). Risk Management for Insurance Practice, Lagos: Inter Training and Education Services.

Covello, V. T. and Allen, F. H. (April 1988). *Seven Cardinal Rules of Risk Communication*. Washington, DC: U.S. Environmental Protection Agency. OPA-87-020

Kpodo, Patrick (1989) *Risk Management in a Developing Economy*", Paper Presented At the National Conference on Risk Management (FARIM) at The Nike Lake Hotel, Enugu, 19th – 23rd March. 1989.

Ogunlana, F.O. (1995). "*The Role of Insurance in Risk Management*", the Nigerian Insurer, Journal of the Nigerian Insurers Association (NIA), No. 3, June.

Oluoma, R. O. (1999). Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Skipper Jr., H. D. (1987). The Promotion of Risk Management in Developing Countries, a Report prepared for UNCTAD, Centre for Risk Management and Insurance Research, College Of Business Administration, Georgia State University, TD/B/C.218, 14th October.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

- **Further Reading**

Kaye, D. (2004). Risk Management, London: Chartered Insurance Institute.

UNIT 8: PROCESS OF RISK MANAGEMENT

CONTENTS

1.0 INTRODUCTION

The management of risk involves a process which is indicative of the fact such task is normally taken by corporate entities in a well defined manner in order to ensure that the end result is in their best interest. This is in view of the fact that the essence of risk management calls actions such as assessing the nature of risk exposure, types of operational risk confronting an organization, and above all, determining the appropriate strategies with which to manage them. This study unit is, therefore, used to discuss the necessary process of risk management.

2.0 OBJECTIVE

At the end of this unit, you should be able to:

- discuss the risk management process
- identify principles of risk management
- identify & explain components of risk management process
- mention & explain components of different approach to risk management process

- discuss the administration of risk management process
- explain the monitoring & review of risk management process

3.0 MAIN CONTENT

3.1 PROCESS & PRINCIPLES OF RISK MANAGEMENT

3.1.1 THE PROCESS OF RISK MANAGEMENT

The management of risk involves a process which means that it goes through some logical steps. The process, according to Kpodo (1989), requires for identification of the threats of operational risk, analysis of such threats, and above all, formulation of appropriate policy for efficient management of the identified threats, among others.

Hence, the process of risk management involves considerations such as the following:

- Identification
- Evaluation
- Measurement and Treatment
- Administration of Risk Management Process, and
- Monitoring and Reviewing of The Process

The discussion of the above considerations is as portrayed below. The discussion is very essential towards full grasp of the concepts involved in the process of risk management.

3.1.2 PRINCIPLES OF RISK MANAGEMENT

There are some fundamental principles which are imperative towards effective risk management. Such principles are as stated below.

Risk management should:

- create value for the operations of an organization;
- be an integral part of organizational processes;
- be part of decision making;
- explicitly address uncertainty and assumptions;
- be systematic and structured;
- be based on the best available information;
- be tailored along with the needs of the organization;
- take into account human factors;

- be transparent and inclusive;
- be dynamic, iterative and responsive to change; and
- be capable of continual improvement and enhancement.

The risk managers in all corporate entities are normally pre-occupied in ensuring that the above principles are adhered to in the process of managing risk exposures of their organizations.

3.2 BASIC CONSIDERATIONS IN RISK MANAGEMENT

3.2.1 Risk Identification

Williams, Smith and Young (1995) posit that risk identification involves the process by which an organization systematically and continuously identifies risks and uncertainties in its operations. Such identification actions by the organization are focused on generating relevant information on sources of risk, hazards, risk factors, perils and exposure to loss.

In order to properly recognize the operational risks of an organization, there is the need for those in charge to have:

- a thorough knowledge of the organization,
- the market in which it operates,
- the legal, social, economic, political and climatic environment in which it does its business,
- its financial strengths and weaknesses,
- its vulnerability to unplanned losses,
- the manufacturing processes, and
- the management systems and business mechanism by which it operates.

The Chartered Insurance Institute (1985) succinctly observes that the consideration of risk identification forms the foundation upon which the task of risk management is based.

SELF ASSESSMENT EXERCISE 1

Mention the necessary considerations in risk identification.

3.2.2 Risk Evaluation/Measurement

The next consideration in the process of risk management is the evaluation of risk and, by extension, the measurement of its impact on the operations of the firm.

According to Kpodo (1989), risk evaluation involves generating very accurate records of past events in order that decisions which will be taken in the future are made on the basis of sound statistics.

The rationale which informs the evaluation of risk is to ensure that the company concerned does not expend too much money on controlling a risk, which may not likely to cost a great deal should it eventually.

Factors to be considered for a systematic procedure in the evaluation of risk in relation to the basic aspects of the operational risk include:

- The probability of a loss occurring or the frequency of loss;
- The severity of the loss; and possibly
- The maximum possible (probable) loss.

SELF ASSESSMENT EXERCISE 2

Differentiate between risk identification and risk evaluation.

3.2.3 Treatment of Risk

The twin considerations of identification of risk and its evaluation may be regarded or termed as risk analysis. This is indicative of the fact that both risk identification and evaluation are diagnostic in nature.

In logical terms, the next step or consideration, therefore, is prescriptive in terms of the likely antidotes that may be amenable in handling the operational risks identified and evaluated. This logical step portrays the whole essence of risk treatment.

3.3 Different Approach to Risk Management

Alternatively there are different steps which are in use in terms of the process of risk management. Such different process involves considerations such as:

- Risk Assessment/Analysis.
- Risk Control, and
- Risk Financing.

These steps are actually derived from those ones identified and discussed above. It means that the earlier considerations can collapsed into these three steps.

3.3.1 Risk Assessment/Analysis

According to Williams, Smith and Young (1995), this consideration involves engaging in those activities that enable the risk manager to identify, evaluate and measure risk and uncertainty and their potential impact on the organization.

Generally, risk assessment is the most basic activity that is being undertaken by the risk manager. The assessment of risk involves actions such as the identification of risks, the analysis of hazards and outcomes, and the measurement of risk.

The basic objectives of risk analysis, as posited by Kaye (2001), are twin fold and these include reasons such as identifying and quantifying the threats that may cause damage or loss to an organization, its responsibilities and its objectives.

Kaye (2001) observes that it will be essential that as prelude to the analysis of risk exposure, the following broad objectives should be kept in by those concerned.

Such basic and necessary objectives which have borne in mind are as follows:

- Identify risk;
- Measure risk carried against the risk levels that are acceptable to the organization;
- Assist in presenting risk concepts clearly and in a consistent style;
- Support decision taking about spending and other actions that may be needed to reduce the risk to the acceptable level;
- Assess both the operational, and the cost effectiveness, of any existing risk management measures that are in place;
- Encourage good decisions about any contingency planning that may be needed;
- Raise management awareness and the depth of understanding of the exposures that are being carried.

The above considerations are imperative in terms of assisting managers in routine and effective management of the organization. Above all, it is also necessary in order to help the managers in demonstrating to the stakeholders that they are effectively in control of organizational operations.

3.3.2 Risk Control

Risk control is a function that is instituted to ensure effective management of risk. Such function involves establishing the relevant measures which to ensure avoiding, eliminating or reducing the chance of loss producing events occurring.

It is also involves measures which are aimed at limiting the severity of the losses inherent in risk. The essence involves seeking to alter the conditions that bring about loss producing events or those conditions that can increase their severity.

Fundamentally, the function of risk control concerns using some methods in treating. Such methods are risk avoidance, and risk reduction as well as risks education, loss prevention and loss minimization.

3.3.3 Risk Financing

Risk financing is fundamentally the approach which involves the manner in which the outstanding risks are handled after the risk control measures have been implemented.

The fundamental object of risk financing is to spread the cost of risks more evenly over time. This is aimed at reducing the financing burden and possible insolvency that may be caused by random occurrence of large losses in organizational operations.

It has been argued that it is also possible to minimize the costs of risk through effective risks financing method. Basically, risk financing involves the use of two main strategies such as risk retention and risk transfer.

The following ways can be used to implement the risk financing approach to risk management.

- By charging losses as they occur against current operating costs;
- Through prior (ex ante) provision for losses arranged either through the purchase of insurance or though the creation of a contingency fund to which loses can be charged; and
- Financing losses as they occur by obtaining loans from financial houses which may be repaid over some months or years.

The use of any risk management in terms of risk financing strategy depends on:

- management's perception of the probability;
- severity of a potential loss-producing event; and
- the financial strength of the organization.

SELF ASSESSMENT EXERCISE 2

Mention and explain the considerations involved in different approach to risk management process.

3.4 ADMINISTRATION OF RISK MANAGEMENT PROCESS

A sustainable and efficient risk management scheme or programme calls for a reliable administrative system. This because having a risk management mechanism is not enough but it has to be installed and used on a continuous basis by the organizations, as opposed to an ad-hoc arrangement. (Kpodo, 1989).

The management of risk is very strategic to the operations of any corporate entity because careless neglect of such function can spell calamitous consequences for the organization. Hence, no organization, particularly the business entity, can afford to toy with the issue of risk management in its operations.

Basically, risk management as a strategic aspect of operations has assumed an important consideration in hierarchy consideration. Hence, risk management is now a separate specialist area of management which has led to the employment of risk managers in the operations of corporate entities.

The presence of risk managers in the scheme of things has thus necessitated according them appropriate pride of place in the management structure of an increasing number of companies.

By implication, therefore, every risk manager in corporate organization is charged with the appropriate responsibilities of administering organization's risk management programme.

3.5 MONITORING & REVIEW OF RISK MANAGEMENT PROCESS

There are logical considerations or which must be taken into account regardless of the techniques that may be employed at each stage, or the eventual form of the risk handling arrangements in an organization.

Therefore, every risk management programme must proceed according to such logical sequence of events in order for an efficient and enduring effective of the system.

Such logical sequence of events for efficient management of risk is imperative towards proper monitoring and review of the risk management process.

The following considerations constitute the sequential flow of such logical events to be considered in monitoring of risk management process.

i) All exposures to risk must be identified

ii) All exposures need to be evaluated according to cause and effect, the aim being to quantify probabilities and severities;
iii) The possibility of avoiding or eliminating any of the risks should be investigated, and if feasible the appropriate steps should be taken;

iv) In the case of other risks, risk reduction measures need to be explored and implemented;

v) The residual risks need to be evaluated so that decisions can be taken about the best methods of financing them; and finally

vi) The results of the whole programme need to be monitored and regularly reviewed in the light of prevailing conditions.

SELF ASSESSMENT EXERCISE 3

What are the considerations for ensuring sequential flow of events to be considered in monitoring risk management process?

4.0CONCLUSION

Management of risk, as you have understood from the discussion in this study unit, involves a process executed in a well defined manner in order to ensure the best interest of organizations. Hence, in risk management certain actions are taken to assess the nature of risk exposure, types of operational risk confronting an organization, and also to determine the appropriate strategies with which to manage them. In essence, risk management calls for actions such as risk identification, risk evaluation/measurement, treatment of risk, risk control, and risk financing. In addition, organizations also ensure that the risk process is monitored and review on periodic basis towards achieving desired result.

5.0 SUMMARY

In this study unit, topics covered include the following:

- The Process of Risk Management
- Principles of Risk Management
- Risk Identification
- Risk Evaluation/Measurement

- Treatment of Risk
- Risk Control
- Risk Financing
- Administration of Risk Management Process
- Monitoring & Review of Risk Management Process

In the next unit, you will be taken through the discussion on methods of risk management.

6.0 TUTOR-MARKED ASSIGNMENT

Explain these terms: Risk Identification, Risk Measurement, Risk Treatment, Risk Control, and Risk Financing.

Solution to Self Assessment Exercises

SAE 1:

The necessary considerations in risk identification are as highlighted below.

- a thorough knowledge of the organization,
- the market in which a company operates,
- the legal, social, economic, political and climatic environment in which a company does its business,
- its financial strengths and weaknesses,
- its vulnerability to unplanned losses,
- the manufacturing processes, and
- the management systems and business mechanism by which it operates.

SAE 2:

Risk identification involves the process by which an organization systematically and continuously identifies risks and uncertainties in its operations.

Risk evaluation involves generating very accurate records of past events in order that decisions which will be taken in the future are made on the basis of sound statistics.

SAE 3:

The following considerations are events to be considered in monitoring risk management process.

i) All exposures to risk must be identified

ii) All exposures need to be evaluated according to cause and effect, the aim being to quantify probabilities and severities;

iii) The possibility of avoiding or eliminating any of the risks should be investigated, and if feasible the appropriate steps should be taken;

iv) In the case of other risks, risk reduction measures need to be explored and implemented;

v) The residual risks need to be evaluated so that decisions can be taken about the best methods of financing them; and finally

vi) The results of the whole programme need to be monitored and regularly reviewed in the light of prevailing conditions.

7.0 REFERENCES/FURTHER READINGS

Adekunle, H. (1995). "*Risk Management Practice and Insurance Surveying*" NICON Risk Management and Survey Co. Ltd, September.

Bickechaupt, D. (1974). General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006). Risk Management for Insurance Practice, Lagos: Inter Training and Education Services.

Kpodo, Patrick (1989) *Risk Management in a Developing Economy*", Paper Presented At the National Conference on Risk Management (FARIM) at The Nike Lake Hotel, Enugu, 19th – 23rd March. 1989.

Ogunlana, F.O. (1995). "*The Role of Insurance in Risk Management*", the Nigerian Insurer, Journal of the Nigerian Insurers Association (NIA), No. 3, June.

Oluoma, R. O. (1999). Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Skipper Jr., H. D. (1987). The Promotion of Risk Management in Developing Countries, a Report prepared for UNCTAD, Centre for Risk Management and Insurance Research, College Of Business Administration, Georgia State University, TD/B/C.218, 14th October.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

Williams, C.A., Smith, M.L. and Young, P.C. (1995). Risk Management and Insurance, 7th Ed, New York: McGraw-Hill, Inc.

- **Further Reading**

Kaye, D. (2004). Risk Management, London: Chartered Insurance Institute.

UNIT 9: METHODS OF RISK MANAGEMENT

CONTENTS

1.0 INTRODUCTION

It is not enough to place in place the management risk process, but it behoves on the risk manager or insurance manager as the case may be, to have sound knowledge of the methods or techniques of risk management. During the previous unit, we discussed the process of risk management. In this study unit, therefore, we shall discuss the common methods or techniques which are amenable for use in managing risk exposure in corporate entities as well as managing personal risk.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- mention and explain techniques of managing corporate risks
- identify types of personal risk
- discuss the process of managing personal risks
- mention problems associated with managing personal risks

3.0 MAIN CONTENT

3.1 TECHNIQUES OF MANAGING CORPORATE RISKS

In terms of management of corporate risks, Kpodo (1989) identified four basic methods of handling operational risks to which corporate entities are exposed.

Such basic methods include considerations such as risk avoidance, risk reduction, risk retention, and risk transfer.

These considerations are also necessary approaches for effective management of risk, which are discussed below.

3.1.1 Risk Avoidance

This involves instituting some measures with which to avoid as many risks as conceivable. For instance, this could involve refraining from undertaking the activity or operation which creates the risk or to shun the responsibilities or costs that the risk impacts.

The paradox herein is that in most cases in an attempt to avoid a particular risk, a new risk is created. Basically, it is evident that some risks could be avoided while so many other risks, which are in the majority, cannot be avoided as all organizational operations involve all sorts of risk.

Furthermore, individuals as mere mortals have to live with some risks. Hence, it is impossible to avoid risk completely in our lives and the operations of corporate entities.

Risk avoidance therefore, may not provide the realistic solution to the various risks which are inherent in the normal activities of human beings and the organizational operations. (Oluoma, 2004).

3.1.2 Risk Reduction

Risk reduction or loss prevention requires that some measures are instituted with the ultimate intention of reducing, if not eliminating, the chances of loss in organizational operations.

Such measures could be taken by the corporate organizations prior to, during or after the occurrence of loss. This same approach is applicable to the management of risk by individual human beings.

Risk reduction as an approach to treatment of risk would call for the adoption of loss prevention or loss control measures or the necessary techniques to minimize the cost, frequency and/or severity of losses arising from occurrence of risk.

In addition, the internal control measures which are normally formulated and instituted by various corporate entities constitute part of the risk control in operations.

3.1.3 Risk Retention

This arises when the prevailing operational risk or personal risk cannot be avoided or reduced by the corporate entities or individuals. The fact is that some types of risk are normally retained by the organizations and individual human beings. For instance, the risk of accidental death can be retained by individuals as a result of religious inclination.

Basically, the unplanned risks can be retained unconsciously as a result of:

- ignorance,
- lack of knowledge,
- inability to reach the right decision,
- laziness,
- indifference or lack of thought.

Risks could be consciously planned to be retained by organizations or individuals for some obvious reasons. One fundamental factor in the case of personal risk is religious belief.

In the case of organizations, some risks can be consciously retained for the mere fact that the risk involved is too minor or inexpensive. The inexpensiveness makes such risk not to deserve special treatment.

On the other hand, there could be a major risk that would involve huge financial commitment that requires special treatment. The treatment may require commitment of huge financial outlay which can be borne by the financial resources of the organizations. Therefore, such risk would be retained by the organizations.

3.1.4 Risk Transfer

There are two main ways of transferring risks which include non-insurance and insurance transfer. In the case of the non-insurance transfer, the purpose is to transfer part or whole of risk liability in terms of the expected loss or damage, to another person or agency that is not an insurance company.

In the case of the transfer of risk to insurance company, it involves taking m of contract the person who takes the insurance policy decides to transfers part or whole of his risks to the insurer who undertakes to indemnify him.

The indemnity carries with it some conditionality such as the happenstance of the risk being the exact liability insured against by the insured. For instance, the person who insured his life against death is only considered for indemnity when he dies if it is the cause of death insured against.

It implies that the insured would be compensated if the risk is the event insured against. This is also subject to the terms and conditions of the contract. Insurance policy somehow provides a reliable way of managing or treating risk.

SELF ASSESSMENT EXERCISE 1

Give reasons which may necessitate the retention of risk by corporate organizations.

3.2 DIFFERENT TYPES OF PERSONAL RISK

Personally, human beings are equally exposed to various forms of risk in life just like the corporate entities. Therefore, an individual is personally exposed to varied types of risk that can adversely affect his personal wellbeing and his dependants' welfare.

The notable examples of such personal risks to which human beings are exposed are as follows:

- Death;
- Sickness;
- Injury;
- Infirmity;
- Loss of Limb or other part of the body;
- Paralysis;
- Loss of breadwinner;

- Loss of or damage to personal property;
- Liability due to damage to other people's property;
- Liability to compensate others for personal injury; and
- Liability for infringement on intangible property of others.

The list above is by no means exhaustive since there are other forms of personal risk which do confront human beings. For instance, the occurrence of property damage and liability risks will result in a reduction in the individual's wealth.

There are other risks that may cause a loss of income such as the loss of earnings during periods of incapacity caused by accident. There may the need to additional expenses on medical treatment to hasten recovery from injury or sickness.

Hence, there are costs associated with many adversities or losses occurring in one's life, which can only be measured with varying degrees of accuracy in terms of monetary value.

Therefore, it may be difficult, if not impossible to determine the exact monetary value of pain, suffering, and loss of facilities caused by personal injury or loss of the sentimental value inherent in certain precious articles such as gold and treasured jewelries.

Generally, therefore, it is impossible for human beings to insulate himself or herself from risks in life since human beings are mere mortals. It implies that no matter how one lives one's life it is impossible to avoid all forms of risk.

Indeed even by trying to minimize the total risk to which one is exposed in life would amount to creating more risks and expenses. For instance, trying to minimize or avoid risk involves forgoing the pleasures and other benefits associated with many activities such as sports, travel, and the higher risky occupations and habitual pastimes.

In the final analysis, it is a matter of trying to maintain a delicate balance between costs and benefits in managing personal risk in life. Basically, the effective balancing of such costs and benefits in risk management depends on an individual's attitude to risk and the size of the potential adverse consequences.

SELF ASSESSMENT EXERCISE 2

What are the potential risks to which an individual is exposed in life?

3.3 PROCESS OF MANAGING PERSONAL RISKS

1. Risk Identification

It is imperative for individuals to identify the risk to which they are exposed in life. Risk identification by individuals involves the recognition of exposures to risk.

The recognition is based on the following considerations in terms of risk exposure:

(i) All basic events causing deterioration in welfare with regard to:

- Physical and mental well-being;
- Current incomes; and
- The value of one's assets.

(ii) All other events that may frustrate the fulfillment of one's future welfare plans:

- Personal circumstances which inevitably change over time;
- Increased responsibility towards large family;
- Responsibility towards extended family members;
- Responsibility towards in-laws from marriage;
- Increase in children's welfare due to grave unemployment situation; and
- Enlarge role and responsibilities in the society.

The periodic assessment and analysis of personal risk exposures has the benefit of bringing to the fore the actual needs, and given limited resources for dealing with those needs. Therefore, it helps individuals in ordering of their priorities in life.

It also helps individuals in taking relevant measures to protect their means of income. This is because the loss of income may arise out of the occurrence of unemployment, sickness, injury or death.

Some individuals may have the penchant of spending above their incomes from their means of livelihood occasioned by ostentatious living. The tendency of ostentatious living such as the lives of epicureans can be checked by means of appropriate planning and re-ordering of such individuals' priorities.

There is the social security in many counties around the world which offer some form of safety net against personal risks such as unemployment, sickness, injury and death. Furthermore, insurance policy can be taken by individuals against risks such as sickness, injury and death. This is available in Nigeria and many people are already having such policies against these personal risks.

However, it is instructive to note that there is no insurance policy against unemployment, and therefore, unemployment benefits from instance are non-existence. Hence, individuals are expected to bear such burden entirely in life.

SELF ASSESSMENT EXERCISE 3

What are the circumstances or events that expose human beings to some forms of risk in life?

2. Risk Evaluation

Risk evaluation for individuals just like corporate entities is based on the following elements:

- Frequency of Loss:- referring to the probabilities of loss producing events occurring;
- Severity of Loss:- referring to the potential losses;
- Maximum possible (probable) loss.

The snag is that even if the individual knows the probabilities of any of the risks to which he or members of his family are exposed, the extent of such knowledge is of severely limited value in relation to planning on how to handle the risks.

Basically, probabilities represent the mean values which convey useful information when the decision maker controls a larger number of exposure units. Nevertheless, the smaller the number of units the larger will be the variations in outcomes from the values expected on the basis of the probability.

Relatedly, the same problem arises when considering the sizes of potential losses. In the event of a loss-producing event occurring, usually the outcome will be a partial loss; for example, damage to a car, house, or other property, rather than total loss. The exception is the event of death.

The fact is that total losses are certain to occur such as the case of death. Therefore, they must be planned for even if their probabilities are small. Hence, this implies that a part of a risk evaluation exercise calls for itemizing assets, the value exposed to loss, and the size of potential income and liability losses.

Instructively, in the above consideration, some allowance must be provided for the potential impact of inflation on future income and replacement costs of the assets.

3. Risk Treatment

In treatment of personal risks, the same techniques which are available to corporate entities can also be employed by individuals in managing the various types of which they are exposed in life.

Such techniques of risk management as discussed above are Risk Avoidance, Risk Reduction, Risk Retention, and Risk Transfer.

All these methods of handling personal risks by individuals are discussed below.

a) Risk Avoidance

Basically, some people have choice in choosing the types of career and by extension, the occupation they would to follow in life. In addition, people are also free to choose their leisure pastimes particularly in Western countries.

Hence, all such considerations make it possible for individuals to avoid particularly precarious activities that can jeopardize their healthy living.

b) Risk Reduction

Furthermore, appropriate measures can be instituted by individuals or the corporate organizations to reduce risks to which property and human beings are exposed.

For example, in factories and construction sites protective clothing helmets and footwear are normally provided so as to reduce the risks to which workers are exposed in such workplaces. The same measures are applicable to companies producing chemical materials and nuclear materials.

c) Risk Retention

Generally, individuals are hamstrung in the case of risk retention. The simple reason is that the scope for risk retention by individuals is usually far more restricted for individuals than for corporate bodies.

Generally, individuals are advised to retain their personal risks in relation to losses that are either small relative to their income or financial savings. The same consideration is also applicable to forms of personal risks that occur with high frequency, which warrant that it will be more cost-effective for individuals to carry the risk themselves.

d) Risk Transfer

Basically, insurance policies are formulated for use by individuals in dealing with those risks which may cause serve financial difficulties to them. Therefore, individuals are normally encouraged to take life assurance policies against personal risks.

Fundamentally, it has been observed that the individuals who mostly need insurance policies are those least placed financially to afford them. For example, a pauper with meager means of livelihood cannot absorb the loss of any of his valuable possessions or the means of his incomes.

Paradoxically, the issue of insurance policy is utterly a luxurious consideration to majority of the populace. Hence, poor people are caught between jaws of personal life risks and the luxurious means of hedging against them.

SELF ASSESSMENT EXERCISE 4

Mention and explain different ways through which individuals can manage their personal risks.

3.4 PROBLEMS IN MANAGING PERSONAL RISKS

The following factors constitute some problems inherent in management of personal risks compared with the management of corporate risks.

- i) Religious consideration which deter so many people in taking assurance policies.
- ii) Poverty which afflict billions of people around the world.
- iii) Ignorance on the part of some individuals who are stack illiterates.
- iv) Neglect by some individuals in taking insurance policies for their property.
- v) Low level of development of the insurance industry particularly in the third world countries.
- vi) Disillusion on the part of those individuals who took assurance policies in the past and only met poor treatment by insurance companies.
- vii) Loss of interest in assurance policies as a result of loss of funds by some individuals to insurance companies in the past.

viii) The consideration that financial compensation can never be complete substitute for life lost from death.

ix) Inadequate compensation on personal injury or infirmity.

x) Frustration experienced by individuals in claiming compensation on loss of property.

4.0 CONCLUSION

You have understood from the discussion in this study unit that for effective management of corporate risks, there are basic methods that must be employed. Such essential methods include risk avoidance, risk reduction, risk retention, and risk transfer. Human beings like organizations also have to contend with some personal risks, which include death, sickness, injury, infirmity, paralysis; loss of breadwinner; damage to personal property; and liability due to damage to other people's property, among others. In treatment of personal risks, the same techniques which are available to corporate entities can also be employed by individuals. Nevertheless, there are some problems which may preclude some individuals from apply any of the techniques for managing their personal risks.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Techniques of Managing Corporate Risks
- Risk Avoidance
- Risk Reduction
- Risk Retention
- Risk Transfer
- Different Types of Personal Risk
- Process of Managing Personal Risks
- Problems in Managing Personal Risks

In the next unit, you will be taken through the discussion on agents of risk management.

6.0 TUTOR-MARKED ASSIGNMENT
Mention and explain the problems involved in managing personal risks.

Solution to Self Assessment Exercises

SAE 1:

The reasons which may necessitate the retention of risk by corporate organizations are as stated below.

- Ignorance,
- Lack of knowledge,
- Inability to reach the right decision,
- Laziness,
- Indifference or lack of thought,
- The risk involved is too minor or inexpensive.
- A major risk may require commitment of huge financial outlay which can be financed by the organizations.

SAE 2:

The potential risks to which an individual is exposed in life are stated below.

- Death;
- Sickness;
- Injury;
- Infirmity;
- Loss of Limb or other part of the body;
- Paralysis;
- Loss of breadwinner;
- Loss of or damage to personal property;
- Liability due to damage to other people's property;
- Liability to compensate others for personal injury; and
- Liability for infringement on intangible property of others.

SAE 3:

The circumstances or events that expose human beings to some forms of risk in life include the following:

- All basic events causing deterioration in welfare;

- All other events that may frustrate the fulfillment of one's future welfare plans;
- Personal circumstances which inevitably change over time;
- Increased responsibility towards large family;
- Responsibility towards extended family members;
- Responsibility towards in-laws from marriage;
- Increase in children's welfare due to grave unemployment situation; and
- Enlarge role and responsibilities in the society.

SAE 4:

The methods of handling personal risks by individuals are highlighted below.
a) Risk Avoidance
b) Risk Reduction

c) Risk Retention

d) Risk Transfer

7.0 REFERENCES/FURTHER READINGS

Adekunle, H. (1995). "*Risk Management Practice and Insurance Surveying* " NICON Risk Management and Survey Co. Ltd, September.

Bickechaupt, D. (1974). General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006). Risk Management for Insurance Practice, Lagos: Inter Training and Education Services.

Kpodo, Patrick (1989) *Risk Management in a Developing Economy*", Paper Presented At the National Conference on Risk Management (FARIM) at The Nike Lake Hotel, Enugu, 19th – 23rd March. 1989.

Ogunlana, F.O. (1995). "*The Role of Insurance in Risk Management*", the Nigerian Insurer, Journal of the Nigerian Insurers Association (NIA), No. 3, June.

Oluoma, R. O. (1999). Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Skipper Jr., H. D. (1987). The Promotion of Risk Management in
Developing Countries, a Report prepared for UNCTAD, Centre for Risk Management and Insurance Research, College Of Business Administration, Georgia State University, TD/B/C.218, 14th October.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

Williams, C.A., Smith, M.L. and Young, P.C. (1995). Risk Management and Insurance, 7th Ed, New York: McGraw-Hill, Inc.

- **Further Reading**

Kaye, D. (2004). Risk Management, London: Chartered Insurance Institute.

UNIT 10: AGENTS OF RISK MANAGEMENT

CONTENTS

1.0 INTRODUCTION

In order to handle the efficient management of operational risks to which organizations are exposed to, there is the need to involve the services of professionals. Moreso, the current trend in the dynamics of environmental variables necessitates the management of the risk exposure by professionals in the operations of organizations. Hence, the grave environmental upheavals necessitate the emergence of professionals in the management of corporate risks. Therefore, in this study unit, such agents of risk management are identified and discussed.

2.0 OBJECTIVES

At the end of this study unit, you should be able to:

- described the place of a risk manager in an organization
- discuss the role of the risk manager
- evaluate the need for outside brokers and consultants
- discuss monitoring and reviewing of the risk management process

3.0 MAIN CONTENT

3.1 RISK MANAGERS IN ORGANIZATIONS

3.1.1 STATUS OF RISK MANAGERS

The risk managers are normally employed by some organizations to take charge of managing the operational risks of such entities. Their position is usually provided for n the organizational hierarchy. Hence, it implies that such professionals can be employed on full-time basis.

Some of these risk managers or insurance managers, as the case may be, are employed and placed in positions that require that they report directly to the managing director or another member of the board of directors.

In some other organizations, majority of risk managers are located either within the organization's accounts/finance division or the company secretary's department. All these positions cannot be faulted because of the financial and legal aspects of risk control.

The risk manager can be made to be involved in handling employee benefit schemes, including pensions. Hence, the position sometimes forms part of the personnel division of a given organization.

According to Chartered Insurance Institute (1985), the position of the risk manager in hierarchical arrangement in a given organization depends on:

i) Historic accident, that is, whether the position has developed out of the management of the organization's insurance, for example, or from the risk control size;
ii) The nature of the organization and its activities; and
iii) The range of duties assigned to the risk manager.

Furthermore, according to Chartered Insurance Institute (1985), the important issues are:

- the degree of authority the risk manager possesses either personally or through his superior; and
- how he is viewed by colleagues throughout the organization whose cooperation and help he requires in order to perform his task efficiently.

It has been observed that authority possessed by risk manager and wiling co-operation do not always go hand in hand. For example, a risk manager who reports directly to the chief executive officer of a large diversified company may possess considerable authority.

Nevertheless, the risk manager may encounter distrust and resentment amongst other managers who are in charge of the operating units of the entity.

This is because the other managers may see the risk manager as a head office spy. Therefore, the sort of personality that enables a risk manager to gain the confidence and co-operation of others is probably more important than formal authority. (Chartered Insurance Institute, 1985).

The status of employment of risk managers differ from one organization to another. Nevertheless, for the efficient management of operational risks, some companies employ a full–time professional risk manager. Some other companies may use the services of risk consultants.

3.1.2 APPOINTMENT OF RISK MANAGERS

The nature of employment, whether full-time or part-time, of a risk manager also depends on the size of the business enterprise and the scope of its operation. In the case of a small or medium sized enterprise operating, for instance, in a less developed country, there might be no need for a full – time risk manager.

However, most large business enterprises would find it very convenient and financially prudent to employ a full-time risk manager. And the risk manager is given the primary responsibility of managing the risk exposure of the company's operations. (Irukwu (1991).

Nonetheless, the growing trend in environmental dynamics resulting in sophistication and magnitude of risk exposures in the corporate world necessitates the employment of full–time specialist risk managers by organizations. This is applicable to most organizations be they in public or private sector.

The risk managers in modern corporate world might need to cooperate with independent experts in some cases for effective and efficient management of emerging operational risks of varied forms of organizations.

There is no hard and fast rule in terms of qualification requirements of risk managers particularly in most third world countries. This is because of the fact that risk management is still in its infancy. Basically, the qualifications for a good risk manager are determined by the extent of his broad responsibilities in a given organization.

In order for a risk manager to be effective he should be a highly qualified expert not only in the management of organizational risks, but also in general businesses management. Above all, a risk manager should have a broad general education. (Irukwu (1991).

In addition, a risk manager is expected to possess a graduate certificate as well as insurance background coupled with many years of experience. In advanced climes, a risk manager may be expected to have technical background in accounting, engineering or law.

Other requirements include personal characteristics which enhances his effectiveness. These are leadership abilities, initiative, tact in working with others, and sound-decision making judgment. (Bickelhaupt (1974).

SELF ASSESSMENT EXERCISE 1

Identify the basic requirements which are capable of making risk managers effective in managing organizational risks.

3.2 RESPONSIBILITIES OF RISK MANAGERS

The responsibilities and authority of the risk manager are enormous considering the fact that there are many spheres of the activities of a corporate organization. Basically, the role of the risk managers may be both executive and advisory.

By and large, risk managers have responsibilities for dealing with the risk exposures of the organization which may be both pure risks and speculative risks. Some obvious responsibilities of the risk managers are identified and discussed below.

1. Identification and Evaluation of Risks:

One of the responsibilities of the risk managers is to identify all the risk exposures of the organization. It is important that he ensures such risks are properly evaluated for effective handling.

The range of risks to which corporate organizations are exposure includes:

- loss of material and human resources;
- liabilities to third parties;

- defects products;
- production operational risks;
- marketing and distribution risks;
- financial risks;
- personnel risks; and
- environmental risks, etc.

In identification and evaluation of risks, the risk manager is advised to pay adequate attention to the structure and operational characteristics of the company, the personalities and nuances and the operating environment.

The risk manager may also wish to develop his own risk-exposure directory and other systems for identifying and classifying operational risks. It is imperative for him to obtain supplementary information on possible risk occurrence areas so as to evaluate and control them.

Furthermore, the risk manager has the task of identifying potential loss exposures and the size of the potential loss to the organization. On the issue of risk financing, the risk manager would determine whether the organization should insure or to retain the exposure. He is expected to guide the company appropriately in all matters relating to insurance and other risk management methods.

2. Communication and Co-Operation

Basically, the operational risks normally cut across all the departments of the organization. Therefore, it is impossible for only the risk manager to have all the knowledge and skills necessary for managing the operational risks.

Hence, it is imperative for the risk manager to be communicating and co-operating effectively with colleagues in all departments of the organization. The assistance of other managers will invariably enhance him in performing the task of co-ordinating the risk management function throughout the entire organization.

There would exist a more frequent, direct relationship with organizational departments such as legal, finance and accounts, production and personnel. However, any of these departments may influence the risk manager's work in some aspects.

Basically, there are matters on which the risk manager will need to be informed and consulted by the legal department in areas such as:

- the preparation and vetting of sales and purchasing contracts;
- the leasing of buildings and plants;

- dealing with claims from dissatisfied and possibly injured customers and members of the public;
- terms of the contracts;
- shifting of legal liabilities for damage or injury; and
- provisions regarding insurance.

In turn, the risk manager would assistance the legal department in the drafting of new insurance contacts or in setting up a captive insurance company.

The finance and accounting departments, in charge of the financial records and budgets of the organization, Irukwu (1991), are placed with responsibility of furnishing the risk manager with information on:

- organization's properties and other assets of the organization;
- their values as well as other valuable information;
- the records of insurance policies and insurance costs;
- designing appropriate insurance cover to protect the assets of the company; and
- fidelity guarantee insurance covers possible falsification of accounts and embezzlement.

Production and work managers would have the responsibility for safety and security since they are directly involved in many of the activities that create risk.

In the case of the personnel department, it has the responsibility for the welfare of employees and therefore, will be involved in programmes to reduce industrial accidents.

In return the risk manager may be responsible for arranging and operating insurance schemes that form part of the package of employee benefits negotiated by the personnel department. (Chartered Insurance Institute, 1985).

3. Advising Top Management on Risk Management

In advisory position, the risk manager's role may largely consist of advising members of the top hierarchy of the organization; top management in terms of the various divisional heads.

In a decentralized organization, he advises the top management of the various operating divisions, on the techniques to be used for the evaluation, control and financing of risk.

In that role, in collaboration with engineering, production, financial and other specialist colleagues, the risk manager may be drawn into the task of helping to establish for the organization standards of feasible and sensible risk control compatible with the corporate objectives.

The risk manager will also be expected to advice on the financing of residual risk of the organization. (Chartered Insurance Institute, 1985).

4. Help Management in Formulating Risk Management Policy

The risk manager is expected to encourage and help management in formulating a policy statement in regard to the objectives and responsibilities of risk management.

The written policy statement approved by the chief executive and board of directors can aid the risk manager tremendously in defining the scope and limitations of his job.

Basically, the risk manager assists in ensuring that the objectives, responsibilities, authority and general policies of his department are clearly formulated.

The envisaged broad guidelines improve the risk manager’s relationships with other executives and departments. It also enables him to obtain the cooperation of any persons within the organization who are crucial to a risk manager for information and supervision of risk management in the form. (Bickelhaupt, 1974).

5. Administering of Insurance Programmes

The risk manager ensures the effective administration of the insurance programme of the organization.

Therefore, he must possess sufficient knowledge and experience in insurance, its operations benefits and technicalities to be able to articulate and implement a sound insurance programme.

Basically, the risk manager should be acquainted with the particular insurance needs of his organizations. Relatedly, he is expected to be familiar with and well versed in analyzing insurance coverage, rates and markets.

For the risk manager’s effectiveness, he needs the consultants to supplement his work and to provide many essential services in aiding him in locating insurance markets, loss prevention services.

The risk manager also needs other advisors such as safety engineers, accountants, attorneys and trust experts for obtaining fair loss settlements. (Bickelhaupt(1974).

Furthermore, the risk manger will need to involve responsible colleagues in the discussions with the insurers for risk reduction measures. (Chartered Insurance Institute, 1985).

6. Loss Prevention

The risk manager's role also borders on loss prevention or accident prevention. In this regards, he has to maintain a close working relationship with all the other department of the organization for proper identification and evaluation of risk exposures of the organization.

He is expected to develop and administer loss prevention programmes in achieving structural, operational, defensive and consequential damage protection of human and material resources of the organization.

Basically, the protective measures to be developed include:

- impeccable building/plant design from safety point of view;
- means of escape;
- disentanglement of safe and hazardous processes;
- prevention of risk spread;
- installation of loss reduction equipment (structural);
- safe design of production flows, storage;
- training of staff in safety matters;
- safe technical installation/ operation;
- organization of watch service, safety engineer, safety officers (operational);
- securing water supply for cooling and extinguishment;
- organization of fire alarm or emergency calls, saving people and property;
- training personnel in using extinguishers and other defensive equipment (defensive);
- organization of salvage groups prevention of consequential damage by removing water, dust, corrosive, gases;
- rehabilitation of damaged items (consequential damage protection).

The risk manager has to assign or delegate responsibilities to other managers in various departments for effective loss prevention and control, since he alone cannot perform the tasks enumerated above.

In the case of the prevention of product defects, for instance, it is usually the duty of design and production department. Moreso, the responsibility for employee safety may be shared between works engineers, production managers and personnel managers.

SELF ASSESSMENT EXERCISE 2

What are the protective measures to be developed by risk managers for loss prevention?

7) Developing Training Programmes on Risk Management

It is the responsibility of the risk manager to develop an education programmes aimed at informing and enlightening the management and the entire staff of the organization on the workings and benefits of a sound risk management programme.

Such programme will go a long to help change the attitude of management which thus far may be indifferent towards management of risks. As a matter of fact, the effective control of risk can only be secured if the measures instituted have the full support of the top management.

Inherent in the educational process is the preparation of risk management and insurance manuals, issuing periodical reports on situation of risks in the organization and steps in handling them.

The risk manger also has the responsibility to train employees on:

- risk prevention and reduction measures like fire prevention course;
- use of fire extinguishers, escape devices, crisis management; and
- crowd control and evasive driving, etc.

The envisaged training programmes are to be designed for both management and staff, and can be organized in-house while some of the programmes can done outside the organization.

The risk manager has the responsibility to prepare a master plan for such training from time to time and rotate them on the relevant sections or training exercises as the case may be.

8) Record Keeping

The risk manager also has to maintain records on sensitive areas on operations of the organization. The relevant official records are necessary towards facilitating the work of his department. Included in these records to be maintained by the risk manager are:

- Record of fixed and movable assets of the organization like building, plant, machinery, stock, motor vehicles, etc including their purchasing dates, current value, etc.

- Insurance records, including register of policies premium payments, date of cover and expiry, loss or claims data, inspection reports etc.

- Records of all loss, dates and amount of interim payments and of final settlement, nature of loss, cause of loss, steps taken to prevent any repetition;

- Risk analysis reports, recommendations made for the handling of risks, and decisions taken.

9) Preparing Reports

The annual reports on the activities of his department are to be prepared and submitted for consideration of the top management and departmental heads.

Such annual reports for top management should incorporate matters such as:

- Changes in the cost, arrangement and scope of insurance coverage, highlighting changes in the level of retained risk;

- An analysis of claims and their relationship to premiums paid, and data on insured values and other measures of exposure to risk;

- An analysis of the cost of operating the risk management department, with estimate of the benefits it provides. Reports for other department heads dealing with matter sunder an analysis of vehicle accidents and costs may e prepared for the transport manger.
  - Analysis of industrial injuries may be prepared for personnel and production departments, etc.

10) Monitoring and Review

The risk manager should constantly monitor, review and necessary adjustment which methods adopted by the organization on risk management. This is in view of the dynamic environment as new risks constantly crops up in organizational operations.

It therefore, behoves on the risk manger to continually re-identify exposures to loss and be concerned with the control of losses. He is also to constantly re-evaluate the financial capacity of the organization to retain risks and select the most advantageous method of funding losses (Wilcox (1996).

It has been observed that the risk management process is a continuing process which calls for results of policies adopted to be monitored. Risk handling decisions are always concerned with the future, and such decisions are usually taken on the basis of information which falls far short of perfect.

Therefore, policies may need to be reviewed in the light of fresh information on the basis of regular intervals in the light of changing conditions. (Chartered Insurance Institute, 1985).

SELF ASSESSMENT EXERCISE 3

Mention the necessary areas which should be covered in the annual reports of the risk manger.

3.3 ROLE OF BROKERS AND CONSULTANTS

It may be necessary from time to time for the risk managers to use the specialized services of outside consultants in risk management. Such services of consultants are relevant in supplementing the service offered by the risk management department.

In essence, the risk managers need the services of independent appraisers, loss adjusters, solicitors, charted accountant and sometimes, medical specialists and brokers towards effective handling of organizational risk.

It is advisable that an organization uses outside consultants whenever it will help to improve on the quality of the risk management service available to an organization. (Irukwu(1991).

The use of outside consultants has inherent advantages such as follows:

i) The resources to tackle an urgent problem quickly, free from difficulties that internal managers have of attending to their normal duties at the same time;

ii) Specialist skills and knowledge which may not be available in the same depth inside the organization;

iii) Access to information which either may not be available to internal management or could involve very high search costs;

iv) A breadth of knowledge and experience in dealing with similar problems not possessed by internal management;

v) Impartiality when dealing with and advising on issues that involve the interests of individual managers;

vi) An ability to provide certain specialist services in a regular basis more cheaply than an individual client could provide hem for itself

The flip side of the use of services of brokers and consultants is that they have to be paid for. Such payment for the services is either in the form of a fee or in the forgoing of some part of the insurance commissions that otherwise could be deducted from an organization's premium.

Hence it boils down that as with other risk management decisions, the questions of whether to employ outside brokers and consultants to assist in risk management process is a matter of considering the relevant costs and benefits.

SELF ASSESSMENT EXERCISE 4

What are the advantages of using Brokers and Consultants for managing corporate risks?

4.0 CONCLUSION

You have understood from this study unit that there exist some agents of risk management which include the risk managers, brokers and consultants. The position of the risk manager is particularly important because he is normally appointed (on full or part time basis) by the organization to take charge of the responsibilities of managing the risk exposure of the organization. The brokers and consultants are outsiders who work for the organizations through the risk managers on the basis of appropriate fees being paid by the organizations.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Risk Managers in Organizations

- Status of Risk Managers
- Appointment of Risk Managers
- Responsibilities of the Risk Manger
- Role of Brokers and Consultants
- Monitoring and Reviewing

In the next study unit, you will be taken through the discussion on detection of risk exposure.

6.0 TUTOR – MARKED ASSIGNMENT

Mention and explain the responsibilities of the risk manager in managing the risk exposures of an organization.

Solution to Self Assessment Exercises

SAE 1:

The basic requirements which are capable of making risk managers effective in managing organizational risks include the following:

- Be a highly qualified expert not only in the management of organizational risks, but also in general businesses management;
- Have broad general education;
- Risk managers should possess graduate certificates as well as insurance background coupled with many years of experience;
- In advanced climes, risk managers may be expected to have technical background in accounting, engineering or law; and
- Personal characteristics which enhances his effectiveness leadership abilities, initiative, tact in working with others, and sound-decision making judgment.

SAE 2:

The protective measures to be developed by risk managers for loss prevention include the following:

- impeccable building/plant design from safety point of view;
- means of escape;
- disentanglement of safe and hazardous processes;
- prevention of risk spread;
- installation of loss reduction equipment (structural);
- safe design of production flows, storage;
- training of staff in safety matters;

- safe technical installation/ operation;
- organization of watch service, safety engineer, safety officers (operational);
- securing water supply for cooling and extinguishment;
- organization of fire alarm or emergency calls, saving people and property;
- training personnel in using extinguishers and other defensive equipment (defensive);
- organization of salvage groups prevention of consequential damage by removing water, dust, corrosive, gases; and
- rehabilitation of damaged items, that is, consequential damage protection.

SAE 3:

The necessary areas which should be covered in the annual reports of the risk manger include the following:

- Changes in the cost, arrangement and scope of insurance coverage, highlighting changes in the level of retained risk;
- An analysis of claims and their relationship to premiums paid, and data on insured values and other measures of exposure to risk;
- An analysis of the cost of operating the risk management department, with estimate of the benefits it provides;
- Reports for other department heads dealing with matter sunder an analysis of vehicle accidents and costs may be prepared for the transport manger; and
- Analysis of industrial injuries may be prepared for personnel and production departments, etc.

SAE 4:

The advantages of using Brokers and Consultants for managing corporate risks are as follows:

i) The resources to tackle an urgent problem quickly, free from difficulties that internal managers have of attending to their normal duties at the same time;

ii) Specialist skills and knowledge which may not be available in the same depth inside the organization;

iii) Access to information which either may not be available to internal management or could involve very high search costs;

iv) A breadth of knowledge and experience in dealing with similar problems not possessed by internal management;

v) Impartiality when dealing with and advising on issues that involve the interests of individual managers;

vi) Ability to provide certain specialist services in a regular basis more cheaply than an individual client could provide hem for itself

7.0 REFERENCES/FURTHER READINGS

Adekunle, H. (1995). "*Risk Management Practice and Insurance Surveying* " NICON Risk Management and Survey Co. Ltd, September.

Bickechaupt, D. (1974). General Insurance, 9th Ed, Illinois: Richard D.

Chilellezi, O. (2006). Risk Management for Insurance Practice, Lagos: Inter Training and Education Services.

Irukwu, J.O (1991). Risk Management in Developing Countries London: Witherby and Company Ltd.

Kpodo, Patrick (1989) *Risk Management in a Developing Economy*", Paper Presented At the National Conference on Risk Management (FARIM) at The Nike Lake Hotel, Enugu, 19th – 23rd March. 1989.

Ogunlana, F.O. (1995). "*The Role of Insurance in Risk Management*", the Nigerian Insurer, Journal of the Nigerian Insurers Association (NIA), No. 3, June.

Oluoma, R. O. (1999). Elements of Insurance, Ikeja: Impressed Publishers.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Skipper Jr., H. D. (1987). The Promotion of Risk Management in
Developing Countries, a Report prepared for UNCTAD, Centre for Risk Management and Insurance Research, College Of Business Administration, Georgia State University, TD/B/C.218, 14th October.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

Wilcox J.F. (1996). "Risk Management in the Oil Industry", *Journal Of The chartered Insurance Institute of Nigeria,* Vol. 2, No. 2, June.

Williams, C.A., Smith, M.L. and Young, P.C. (1995). Risk Management and Insurance, 7th Ed, New York: McGraw-Hill, Inc.

- **Further Reading**

Kaye, D. (2004). Risk Management, London*:* Chartered Insurance Institute.

UNIT 11: DETECTION OF RISK EXPOSURE

CONTENTS

1.0 INTRODUCTION

The detection or identification of operational risks, in terms of risk exposure embedded in the activities of an organization, is normally a herculean task for the risk managers. A corporate entity cannot manage its risk exposure without identifying the various risks it is exposed to in its operations. Decisions on risk management, in terms of taking precautionary measures against operational risks, may not be relevant in the face of inadequate detection of the risk exposure of an organization. Hence, generating relevant information becomes imperative in identifying an organization's risk exposure. This study unit, therefore, is used to discuss the whole gamut of the intricacies involved in risk detection.

2.0 OBJECTIVES

At the end of this study unit, you should be able to:

- explain detection of risk exposure

- list and explain common methods of risk detection
- identify common features of risk detection
- mention the internal and external sources of information for detection of risk exposure
- outline and explain techniques of risk detection

3.0 MAIN CONTENT

3.1 DETECTION OF ORGANIZATION'S RISK EXPOSURE

3.1.1 Detection of Risk Exposure

Risk detection or identification is a prelude to the management of risks in operations of any given organization. Therefore, the first challenge for the risk managers is to engage in detection and recognition of the risk exposure embedded in the operations of organizations.

Since the risk managers are to be fully involved in the detection of risk exposures of organizations, they have the responsibility of ensuring that such function is cost effective and necessarily in line with the organizations' risk management values.

Basically, the risks in operational of an organization normally arise as a result of the dealings with the organization's different stakeholders. Hence, to properly detect and recognize the risk exposure of an organization, the risk manager has the responsibility of generating appropriate information that amenable for such function.

Since risks involve events that when occur cause some problems, risk detection or identification, therefore, should start with the source of the problems or alternatively with the problem itself. Therefore, the considerations involved are:

- **Source analysis**

The sources of risk may be from the internal operations of the organization. They can as well be related external dynamics of the environment as far as the organization is concerned. Such sources in both considerations can be the target of risk management.

Some examples of sources of risk to an organization are stakeholders of a project, employees of the company or the weather condition in area where the company operates.

- **Problem analysis**

Risks can be related to detected threats in organization's operations. In this consideration, we have instances such as: the threat of losing money in transactions; the threat of abuse of privacy information by unscrupulous employees; and the threat of industrial accidents and employee casualties.

The threats to operational risks may exist in relation to the various stakeholders of the organization; most importantly with shareholders, customers and legislative bodies such as the National Assembly which may be in the process of enacting some unfavourable legislation.

When either source or problem is known, the events that a source may trigger or the events that can lead to a problem can be investigated. (Hubbard, 2009).

For example: stakeholders such as banks recalling loan facilities during project execution may endanger funding of the project; classified information may be stolen by employees even within a closed network; leakage of hazardous chemicals may make all employees in the factory premises as casualties.

3.1.2 Common Methods of Risk Detection

The chosen method of identifying risks by a risk manager may depend on culture, industry practice and compliance. The detection methods can be established in templates. In essence, relevant templates can be developed for detecting source, problem or event.

Some common methods of risk identification are as follows:

1. Objectives-based risk identification

All organizations have operational objectives. Therefore, any event that may threaten achieving any operational objective partly or completely is identified as risk.

2. Scenario-based risk identification

In the case of this method using scenario analysis, different scenarios are created by the risk manager. The scenarios may be based on the alternative ways of achieving an objective.

Alternatively, the scenarios may be an analysis of the interaction of external environmental forces in the economy. Any event that may precipitate an undesired scenario alternative is identified as risk

3. Taxonomy-based risk identification

The classification in taxonomy-based risk identification is a breakdown of possible risk sources. Based on the taxonomy and knowledge of best practices, a questionnaire is designed for administration. The relevant answers may be obtained from the questions would reveal operational risks. (Hubbard, 2009).

4. Common-risk checking

In several industries, some checklists for known operational risks are available. Each risk in the list can be checked for application to a particular situation. (Hubbard, 2009).

5. Risk charting

According to Crockford, (1986), this method combines the above approaches by listing company's resources at risk, threats to those resources, modifying factors which may increase or decrease the risk and consequences the company may is wish to avoid.

A matrix can be created under these headings which would enable the generation of a variety of approaches. risk manager can begin with company's resources and consider the threats they are exposed to and the consequences of each.

In the alternative, the risk manager can start with the threats and examine which operational resources they would affect. The risk manager can as well begin with the consequences and determine which combination of threats and operational resources would be involved to bring them about.

3.1.3 Common Features of Risk Detection

i) Risk identification is usually given priority in whichever form it is carried out.

ii) There is no one technique that is better than the other. It all depends on the type of risk exposure of the factory.

iii) Risk detection should be on a continuous process.

iv) There is need for documentation of all the activities carried out in risk detection exercise.

v) Workers should be encouraged to be involved during the risk identification exercise and at all other times.

vi) An important consideration of the techniques to be used is the cost of the exercise.

SELF ASSESSMENT EXERCISE 1

Mention and explain the common methods which can be used for detection of risk exposure.

3.2 Sources of Information for Risk Detection

There are many ways through which the risk manager can generate information for use in detecting the risk exposure embedded in the operations of a given organization.

Hence, the relevant information can be generated from both internal sources and external sources. These sources are identified and discussed below.

3.2.1 Internal Sources of Information

There are different sources of internal information available to the risk manager and we will try to examine some of them here.

1. Existing Officials

The risk manger, particularly a newly employed one, should visit all the operational departments of the organization so as to understand the activities being carried out in the organization.

This visit must be extended to the production floor called shop floor because that is where the actual production takes place. During the visit, the risk manager should interact and interview key managers in the production department so as to generate first hand information on the operations of the organization

The interaction between the risk managers and the officials of the production department would also be used to generate information on the inherent risks exposure of the organization

2. Existing Documents

The relevant documents maintained in the course of business activities by the organization can be examined to generate information by the risk managers.

The relevant documents which can be useful for the detection of risk exposure of an organization include the following:

i) Proposal documents
Prepared on new projects for use in assessing the risk exposure of such projects.

ii) **Auditors' reports**
Issued by both the internal and external auditors to assess in ensuring that funds are transferred as approved by the boards.

iii) **Insurance documents**
Obtained on insurance policies showing the extent of risk coverage of the organization's risks.

iv) **Documents on insurance risks survey**, warranties and exclusions, which can also help the risk manager in assessment of risk exposure.

v) **Documents on risk and impact analysis** on the company's operations produced within the risk management department.

vi) **Reports on risk incidents and accidents** prepared by the production department.

vii) Documents on information prepared for the company's insurers, These materials will include reports of risk incidents and information prepared for the company's insurers.

SELF ASSESSMENT EXERCISE 2

Mention and discuss the various documents which can help risk managers to assess risk exposure.

3.2 External Sources of Information

External information refers to information which is normally generated from outside the organization. Such pieces of information, which could be both formal and informal, constitute what is referred to as 'risk intelligence'.

The external pieces of information are gathered from the following sources:

i) Emergency services from the fire services, etc.

ii) Government Ministries, Departments and Agencies such as Ministry of Trade and Investment, Federal Ministry of Foreign affairs, etc.

iii) Publications of insurance and reinsurance companies, etc.

iv) Business or trade and professional bodies

v) Consultants that could provide relevant and current information.

3.3 Techniques for Risk Identification

There are available techniques which can be used by the risk manager for risk identification or detection in organization's operations.

1. Organization Chart

The organization chart shows pictographically the different authority-responsibility positions in an organization and lines of communication on vertical and horizontal bases. It is normally designed by the organizational as a useful chart for representing the organizational structure.

Merits of Organization Charts

i) It is used to stressing areas of particular concentration of risk.

ii) It portrays the structure of the organization and therefore, makes the work of a risk surveyor easier to accomplish.

iii) It portrays an extensive view of the authority-responsibility relationships in the organization.

iv) It could encourage the designer of the chart to consider risk in the context of the whole entity.

Demerits of Organizational Charts:

i) It is usually too embracing and does not provide specific clues to specific risks in the organizations.

ii) It is normally designed to be very simplistic in nature and cannot be over relied upon by the risk manager.

2. Flow Chart

The flow chart shows in a depiction forms the production operations within an organization. Essentially, therefore, it depicts the route followed by all of the critical materials of the final product, from production through to completion and the final delivery.

The relevant flow chart shows on productive activities through the raw materials are processed into the final products.

Merits of Flow Chart

i) It charts out the complicated plant and process into a smaller and manageable design that allows for risk identification.

ii) It tends to be more detailed compared with the previous technique as discussed above.

iii) It is qualitative in nature as opposed to quantitative approach and it could easily be appreciated by any person.

Demerits of Flow Chart

i) It could be time consuming when being used.

ii) Such analysis could be too simplistic form of the complex process involved in production of plant.

iii) Risks identification through this process is not specific but general

iv) The technique does not provide for the measure of probability of a loss occurring in production.

3. Checklist and Questionnaire

The technique involves the use of normal questionnaire that is designed by the risk manager. The questionnaire is used to collect risk data from the officials who are in charge of different positions in an organization.

The checklists and questionnaires could serve as chronicles with which the risk manager can retain information on the state of risk in the organization. This is particularly so in the case of making reference to the previously completed ones.

Merits of Checklists and Questionnaires:

i) They are fast in usage for identifying operational risks.

ii) They are cheaper and cost effective to administer and use.

iii) They make it easier for the comparison of new information on risks and previous ones.

iv) They could be widely adopted for different organizations.

v) Pave the way for involvement of every worker in the risk identification process.

Demerits of Checklists and Questionnaires

i) The technique can only provide second hand information for detection of risk.

ii) There could be elements of bias as other people are the ones to complete the checklists.

iii) The risk manager has no control over the collection of the information.

iv) The technique is usually associated with poor responses from the officials of the organization.

v) Problem of bias could be make information through the technique to be misleading and laden with ambiguities.

4. Physical Inspection

The technique calls for the physical inspection of the operational plants, processes and premises in order to detect or identify the likely causes of loss to the organization.

It implies that the surveyor must visit and inspect the productive resources personally and take note of any abnormality that may likely aggravate occurrence of risks.

The surveyor will have to compare the present state of the operational risks with those of the previous exercise. He will then make recommendations in line with his observations.

Merits of Physical Inspection

i) The inspector will rely on his own judgment for collection of information.

ii) The technique fosters cordial relationships between the risk surveyors and the operators in the organization.

iii) The technique can be carried out within a short notice since it does not need any elaborate plan.

Demerits of Physical Inspection

i) Carrying out physical inspection can be time consuming.

ii) The task of risk management will solely rest on the shoulder of the risk manager or risks surveyor since the operators are not compelled to get involved in the exercise.

iii) The technique could be too tasking for the risk inspectors without the cooperation of the operators.

iv) The operators may conceal some information from the risk inspectors.

v) The operators may sabotage the efforts of the risk inspectors.

5. Fault Trees

The technique attempts to look at a chain of events in order to identify the likely sources of possible loss to the organization. Therefore, it looks at the likely cause of hiccups in production activities of the organization and the likelihood of such risks occurring.

According to Kaye (2001), the fault tree as a technique can achieve two things such as follows.

a) The technique can look at the flow chart from the point of view of risk and then assess the chance of the supply chain being broken, and

b) The technique can also look at risk within a production process or piece of machinery, and then assess the potentials for damage.

Merits of Fault Tree

i) The technique provides an exceptional way to reduce complex events into their component parts.

ii) The technique gives some leeway to the identification of all the possible risky events in operational problem.

iii) The technique makes it possible for the calculation of likelihood of events occurring.

Demerits of Fault Tree

i) The technique could involve complex calculations and therefore, can frighten some people from using it.

ii) The technique is devoid of the advantages of probabilities and therefore, it cannot be used to predict a risk incident.

6. Hazard and Operability Study

The technique affords the risk manager the thorough examination of the operations of an organization.

Essentially, the technique involves detailed examination of a plant or production process with a view at identifying the likely cause of a loss.

The technique which is commonly called HAZOP is employed in risk identification for very complex and risky operations such as production of chemicals or brewing of drinks.

Merits of Hazard and Operability Study

i) The technique affords a detailed examination of the risk so that comprehensive analysis of risk could be carried out.

ii) The technique involves the use of a team of risk analysts which makes it effective.

iii) The technique can be used to generate ideal result from detection of risk.

iv) The technique affords the risk manager to involve other people in detection of risks.

Demerits of Hazard and Operability Study

i) The technique can also be very time consuming carry out.

ii) The technique can be expensive to execute in the detection of operational risks.

iii) When at times, complicated plants are simplified so as to carry out the exercise and it could lead to a misrepresentation of the actual state of the risk exposure of the organization.

iv) The technique cannot be used in isolation of other techniques.

SELF ASSESSMENT EXERCISE 3

What are the various techniques that can be used for detecting risks?

4.0 CONCLUSION

The discussion in this study unit has exposed you to the fact that the detection of risks in organization operations regarding risk exposure is normally critical for the management of risks. The common methods for identification of risk exposures include objectives-based risk identification, scenario-based risk identification, taxonomy-based risk identification, common-risk checking, and risk charting. For effective detection of risk exposures inherent in operations of any organization, the risk manager has to depend on information from both internal and external sources. In terms of techniques of risk detection, there are organization chart, flow chart, checklist and questionnaire, physical inspection, fault trees, and hazard and operability study, which can be used.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Detection of Risk Exposure
- Common Methods of Risk Detection
- Common Features of Risk Detection
- Internal Sources of Information
- External Sources of Information
- Techniques of Risk Detection

In the next study unit, you will be taken through the discussion on risk evaluation.

6.0 TUTOR-MARKED ASSIGNMENT

Identify and explain the various techniques that can be used for detecting risks.

Solution to Self Assessment Exercises

SAE 1:

Some common methods of risk identification are as follows:

i. Objectives-based risk identification

All organizations have operational objectives. Therefore, any event that may threaten achieving any operational objective partly or completely is identified as risk.

ii. Scenario-based risk identification

In the case of this method using scenario analysis, different scenarios are created by the risk manager. The scenario may be an analysis of the interaction of external environmental forces in the economy. Any event that may precipitate an undesired scenario alternative is identified as risk

iii. Taxonomy-based risk identification

The classification in taxonomy-based risk identification is a breakdown of possible risk sources out of which a questionnaire is designed for administration. The relevant answers may be obtained from the questions would reveal operational risks.

iv. Common-risk checking

In several industries, some checklists for known operational risks are available. Each risk in the list can be checked for application to a particular situation.

v. Risk charting

This method combines the above approaches by listing company's resources at risk, threats to those resources, modifying factors which may increase or decrease the risk and consequences the company may wish to avoid.

SAE 2:

The various documents which can help risk managers to assess risk exposure.

i) Proposal documents

Prepared on new projects for use in assessing the risk exposure of such projects.

ii) Auditors' reports

Issued by both the internal and external auditors to assess in ensuring that funds are transferred as approved by the boards.

iii) Insurance documents

Obtained on insurance policies showing the extent of risk coverage of the organization’s risks.

iv) Documents on insurance risks survey, warranties and exclusions, which can also help the risk manager in assessment of risk exposure.

v) Documents on risk and impact analysis on the company’s operations produced within the risk management department.

vi) Reports on risk incidents and accidents prepared by the production department.

vii) Documents on information prepared for the company’s insurers, These materials will include reports of risk incidents and information prepared for the company’s insurers.

SAE 3:

The various techniques that can be used for detecting risks are as follows:

i) Organization Chart

The organization chart shows pictographically the different authority-responsibility positions in an organization and lines of communication on vertical and horizontal bases. It is normally designed by the organizational as a useful chart for representing the organizational structure.

ii) Flow Chart

The flow chart shows in a depiction forms the production operations within an organization. Essentially, therefore, it depicts the route followed by all of the critical materials of the final product, from production through to completion and the final delivery.

iii) Checklist and Questionnaire

The technique involves the use of normal questionnaire that is designed by the risk manager. The questionnaire is used to collect risk data from the officials who are in charge of different positions in an organization. iv) Physical Inspection

The technique calls for the physical inspection of the operational plants, processes and premises in order to detect or identify the likely causes of loss to the organization.

v) Fault Trees

The technique attempts to look at a chain of events in order to identify the likely sources of possible loss to the organization. Therefore, it looks at the likely cause of hiccups in production activities of the organization and the likelihood of such risks occurring.

vi) Hazard and Operability Study

The technique involves detailed examination of a plant or production process with a view at identifying the likely cause of a loss.

The technique which is commonly called HAZOP is employed in risk identification for very complex and risky operations such as production of chemicals or brewing of drinks.

7.0 REFERENCES/FURTHER READINGS

Crainer, S. and Des Deanlove (eds.) (2004). Financial Times Handbook of Management. Edinburgh: Pearson Educational Ltd.

Crockford, Neil (1986). An Introduction to Risk Management (2 ed.). Cambridge, UK: Woodhead-Faulkner.

Dorfman, Mark S. (2007). Introduction to Risk Management and Insurance (9 ed.). Englewood Cliffs, N.J: Prentice Hall.

Hubbard, D. (2009). The Failure of Risk Management: Why It's Broken and How to Fix It, New Jersey: John Wiley & Sons.

Malonis, Jane A. (Ed) (2000). Encyclopedia of Business, 2nd Edition. Detroit: Gale Group.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

Wilcox J.F. (1996). "Risk Management in the Oil Industry", *Journal Of The chartered Insurance Institute of Nigeria,* Vol. 2, No. 2, June.

Williams, C.A., Smith, M.L. and Young, P.C. (1995). Risk Management and Insurance, 7th Ed, New York: McGraw-Hill, Inc.

- **Further Reading**

Kaye, D. (2004). Risk Management, London*:* Chartered Insurance Institute.

UNIT 12: RISK EVALUATION

CONTENTS

1.0 INTRODUCTION

It is obvious that risks, to which an organization is exposed, have to be critically assessed or evaluated before any strategies for their management can be instituted. Therefore, it is very critical for the risk manger to evaluate the risks of his organization in order to determine the appropriate measures which are necessary for their management. In this study unit, therefore, the discussion is based on risk assessment, the consideration for self insurance and organization policy on level of risk retention.

2.0 OBJECTIVES

At the end of this study unit, you should be able to:

- explain the process of risk assessment
- differentiate between potential severity of impact of risk and composite risk index
- discuss level of risk in relation to self insurance

- explain process of measuring risk
- mention the merits and demerits of self insurance
- discuss policy on level of risk retention
- mention and explain operational plans against risks

3.0 MAIN CONTENT

3.1 RISK ASSESSMENT

3.1.1 Potential Severity of Impact of Risk

Risks must be evaluated in relation to their potential severity of impact after they have been identified. Generally, the assessment is in terms of the negative impact, such as damage or loss and to the probability of the occurrence of the risks. (Dorfman, 2007).

Basically, in the assessment of risks it is important to engage in the best approach to decisions in order to properly plan for the implementation of the risk management plan. Herein is the essence of best educated opinions and available statistics as the primary sources of information.

The basic difficulty in risk assessment is the determination of the rate of occurrence because of the fact that statistical information is not available on all kinds of past incidents of risks.

In addition, evaluating the severity of the impact or consequences is often quite difficult in terms of intangible assets. The valuation of assets, generally, possesses some issue that needs to be resolved in risk assessment.

Essentially, risk assessment is normally meant to produce information for the management of the organization. It is obvious that such information will indicate that the primary risks of operations are easy to understand.

The information produced from risk evaluation will also allow for the risk management decisions to be prioritized. There have been several theories and attempts to quantify risks.

Perhaps the most widely accepted formula for risk quantification among the numerous different risk formulae is as expressed below.

Risk Magnitude = Rate (or probability) of Occurrence x **Impact of the Event.**

3.1.2 Composite Risk Index

For the composite risk index (Dorfman, 2007), the above formula can also be used by re-writing it as follows:

Composite Risk Index = Impact of Risk event x Probability of Occurrence

The impact of the risk event is commonly assessed on a scale of 1 to 5, where 1 and 5 represent the minimum and maximum possible impact of an occurrence of a risk.

The impact of the risk is usually expressed in terms of financial losses. However, the 1 to 5 scale can be arbitrary and need not be on a linear scale given that fact that financial terms are used for the losses.

Just like the impact of risk, the probability of occurrence is likewise commonly assessed on a scale from 1 to 5, where 1 represents a very low probability of the risk event actually occurring while 5 represents a very high probability of occurrence.

This alignment may be expressed in either mathematical term such as; event occurs once a year, once in ten years, once in 100 years etc. Alternatively, it may be expressed in narrative form such as; event has occurred here very often; event has been known to occur here; event has been known to occur in the industry etc.

Basically, the 1 to 5 scale can be linear or non-linear depending on decisions or approaches as decided by the subject-matter experts in the field of risk assessment.

The Composite Index thus can take values ranging typically, from 1 through 25, and this range is usually arbitrarily separated into three sub-ranges.

The overall risk assessment is then categorized as Low, Medium or High; all depending on the sub-range containing the calculated value of the Composite Index. For instance, the three sub-ranges could be defined as 1 to 10, 11 to 20 and 21 to 30.

Generally, the probability of risk occurrence is difficult to estimate. This is because the past data on frequencies are not readily available, as indicated earlier in this discussion.

Similarly, the impact of the risk is not easy to estimate since it is often difficult to estimate the potential loss in the event of risk occurrence.

Further, the above factors can change in magnitude depending on the adequacy of risk avoidance and prevention measures instituted by the organization. It is also due to changes in the external business environment.

The above reasons imply that it is critically necessary for the risk manager to periodically re-assess risks and intensify or relax mitigation measures as the case may demand.

Similarly, changes in environmental variables such as procedures, technology, schedules, budgets, market conditions, political environment will typically call for re-assessment of risks.

SELF ASSESSMENT EXERCISE 1

What are the problems involved in assessment of risks?

3.2 LEVEL OF RISK AND SELF INSURANCE

The financial strength of an organization is a major factor that determines the level of risk which it could retain in its portfolio. A large organization with enormous financial muscle can easily absorb a loss of million in monetary terms.

On the other hand, a small fledgling organization cannot absorb such enormous loss emanating from occurrence of a risk because it does not have the financial strength to cope with it.

Nevertheless, there are some advantages that can be derived from decision by an organization to accommodate its risks internally instead of insuring them.

3.2.1 Measurement of Level of Risk

A level of risk is more often than not assessed or calculated using two approaches such as the likelihood and severity.

The assessment of level of risk is normally carried out to estimate the level of risk that an organization can accommodate. In essence, assessment of risk involves trying to measure the extent to which an organization can accommodate a percentage of its risk exposure.

1. Likelihood

This refers to the frequency of occurrence of risk. Therefore, the term is used to measure whether the risk could occur and the frequency of its occurrence. It is important to note that though small losses occur more frequently than very large losses.

Nevertheless, if small losses occur very frequently it could have the same impact as a large loss. The risk manager is always is concerned with such scenario. Relatedly, the frequent occurrence of small losses could be an indicator that a big loss could occur.

The frequency of the occurrence of risk could be like:

- Several times in a year
- Once in every year
- Once in five years
- Once in ten years
- More than ten years

Such frequencies are important in assessing the level of self insurance.

2. Severity

This refers to the impact of loss from a risk. This refers to the measurement of the amount of loss as against the frequency of the loss. In essence, the frequency of loss determines its value to the organization.

Severity of loss implies how grave the loss will be in terms of its occurrence to the organization. In other words, severity measures the quantum of the loss of a risk that can occur or that had already occurred.

3.2.2 Merits of Self Insurance

Such merits of self insurance are as follows:

i) There will be savings in risk management expenditure;

ii) There will also be some savings from the cost of taking insurance policy;

iii) There would be no payment of premium on the assets of the organization;

iv) Industry's claims experience does not increase organization's cost of risk transfer;

v) There will be direct incentive to reduce and control the risk of loss;

vi) There will be no disputes arising as no contact exists between an insurer and insured in the event of loss;

vii) Funds would be available for engaging qualified personnel for the insurance department.

3.2.3 Demerits of Self Insurance

In corollary, there are some demerits in self insurance. Such demerits are as follows:

i) A catastrophic loss without insurance policy could lead to the liquidation of an organization.

ii) An aggregate of losses could have the same effect as a catastrophic loss.

iii) It could lead to tying down investable funds for purpose of risk financing.

iv) Self insurance leads to incurring extra cost on the employment of staff for the insurance unit.

v) Lack of access to technical advice from insurance company on risk management and control.

vi) Contribution to the risk financing funds may not be exempted for tax purposes.

SELF ASSESSMENT EXERCISE 2

Mention the merits and demerits of self insurance.

3.3 POLICY ON LEVEL OF RISK RETENTION

The risk manager has to decide on the level of risk to be retained internally and those to be transferred to others by the organization.

These considerations are normally based on measurement of likelihood and severity of loss exposure. (Kaye, 2004).

Recalling from above, the following (Kaye, 2004) illustrates the frequency of occurrence of loss.

a) Frequency of Occurrence of loss

- Several times in a year
- Once in every year
- Once in five years
- Once in ten years
- More than ten years

These frequencies are critical in assessing the level of loss retention and the level to transfer to insurance company.

In the case of the severity of loss, the policy on risk retention (Kaye, 2004) can be assessed based on the factors highlighted below.

b) Severity of Loss

1. Negligible

- o All problems can be restored with no impact beyond the unit
- o Financial loses

  Optional: below N10,000

  Revenue impact on local unit's figures only

2. Marginal

- o It takes up to one day to reinstate customer – facing service
- o Financial losses:

  Capital below N100,000
  Revenue 10% local units targets 3% of group targets

3. Critical

- Fines by regulatory authorities
- Losses of confidence within the client base and other stakeholders
- Losses of confidence within the work force
- Credit rating fall one sub level or more
- Financial loss of:

  Capital above N1,000,000

  i) Revenue 25% local unit targets, 10% group targets

  ii) Health or accidental injury risk

  iii) Health and safety approvals for a building withdrawn

4. Catastrophic

- Loss of regulatory or license approval
- Loss of confidence in the brand name by the general public
- Loss of confidence in the brand name by the shareholders
- Financial loss of:
  - Capital above N1,000,000
  - Revenue 50% targets
- Credit rating fall one full level
- Risk of life

The considerations in terms of both frequency and severity of loss, involve the assignment of weights to them as portrayed in above presentation.

For instance, if a risk takes place, and it takes a day to reinstate the operations while the customer is confronted with a loss of N10,000, then the weight of the likelihood is 4 and severity is 1 based on a matrix.

A risk matrix can then be developed for the organization which is shown below.

Figure 11.3: Matrix for Risk

	Frequency of Loss	1 Negligible	2 Marginal	3 Critical	4 Catastrophic
5	> 5 times per year				
4	Annually				
3	1 to 5 years				
2	5 to 10 years				
1	< 10 years				

Source: Kaye, D. (2004). Risk Management. London: Chartered Insurance Institute, p. 69.

From the figure above, all the risks that fall within the shaded areas in the matrix are the ones that can be accommodated by the organization for self insurance.

The organization therefore, could afford to pay little or no considerations such risks as indicated by the shaded areas of the matrix.

The rating of risks can also be influenced by the terms of statutory and management priorities. This implies that handling of risks by organizations does depend on legal requirements and management philosophy.

Generally, organizations are exposed to different types and levels of risks in their operational activities. Handling of such risks in terms of treatment of the risk exposures by the organizations is dependent on its exposure, its culture and its desire to retain risks.

Nevertheless, legal restrictions could also influence organizations decisions on handling risks. For instance, an organization in order to be a good corporate citizen, will always desire to operate within the confines of legal requirements.

Hence, a corporate body will not like to engage in any illegal acts that could lead to its being treated with disdain by the government to the extent of being prosecuted for infringements.

Relatedly, the risks managers will also ensure that appropriate strategies are in place for effective management of the risk exposure of organizations, based on the nature of the risk exposures.

SELF ASSESSMENT EXERCISE 3

Identify the categorizations of the severity of loss.

3.4 OPERATIONAL PLANS AGAINST RISKS

1. Contingency Plan

In any organization, a risk event can occur at anytime and therefore, it is inevitable for organizations to formulate contingency plans for operations in the event of such occurring.

The contingency plan refers to the plan that allows organizations to operate pending the time when the operations are fully restored. Such contingency plans may be for partial operations.

In essence, contingency planning involves formulating plans that could enable organizations to continue in operations after a risk incident might have occurred.

Contingency plans for mitigating risks are normally put in place for organizations to operate while the problem that occurred would be ratified. Therefore, contingency plan is a kind of emergency plan meant to solve a crisis situation.

2. Continuity planning

Continuity planning is the plan formulated by an organization to enable it to continue in operations after a disaster might have occurred.

It is similar to the contingency plan apart from the fact that it is not meant for an emergency situation as associated with contingency planning.

3. Disaster planning

The disaster planning involves formulating plans with which to manage disaster situation in operations arising from occurrence of risk. In essence, disaster plans are put in place to enable an organization manage a disaster situation which involves the occurrence of a catastrophic risk event.

4. Crisis planning

Crisis planning is normally formulated and put in place for managing any crisis situation in the operations of an organization. Such crises range from strikes, breakdown of operating system, fire outbreak to flood disaster.

It may not be compulsory for an organization to put in place all the above mitigating plans for operations in the event of occurrence of risks. Nevertheless, the type of plan to be used by an organization in risk situation depends on:

- its risk exposure;
- the severity of a loss occurring; and
- the nature of its operations.

Generally, there is need for organizations (Kaye, 2004) to expect incidents of risks with the potential to destroy the organization to occur. Therefore, the risk manager has to ensure that:

i) There is a fast, authorized and visible control of risk incident and its aftermath;

ii) Damage is controlled as far as is possible;

iii) Security and safety issues are controlled;

iv) Damage assessments are received with assurance and acted upon;

v) The brand value is protected;

vi) Instantaneous responsibilities are met; and

vii) The return to 'business as usual' is accelerated.

SELF ASSESSMENT EXERCISE 4

What should a risk manager do in relation to incidents of risk?

4.0 CONCLUSION

On the basis of the discussion in this study unit, you have understood that risks should be evaluated in relation to their potential severity of impact. In the assessment of risks it is important to take into cognizance the best approach to decisions, by using best educated opinions and available statistics, in order to properly plan for the implementation of the risk management plan.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Risk Assessment
- Potential Severity of Impact of Risk
- Composite Risk Index
- Level of Risk and Self Insurance
- Measurement of Level of Risk
- Merits and Demerits of Self Insurance
- Policy on Level of Risk Retention
- Operational Plans against Risks

In the next study unit, you will be taken through the discussion on risk control.

6.0 TUTOR-MARKED ASSIGNMENT

What are the merits and demerits of self insurance to a corporate entity?

Solution to Self Assessment Exercise

SAE 1.

The problems involved in assessment of risks are as follows:

- i) Problem of non-availability of relevant information for assessing occurrence of risks.
- ii) Use of personal judgment in some cases which may not be helpful.
- iii) Use of available statistics which may not be applicable to all risks.
- iv) Determination of the rate of occurrence of risks because of the fact that statistical information is not available on all kinds of past incidents of risks.
- v) Evaluating the severity of the impact or consequences is often quite difficult in terms of intangible assets.
- vi) The valuation of assets, generally, possesses some issue that needs to be resolved in risk assessment.
- vii) The information produced on risk for management may not be easy to understand.

SAE 2.

Merits of self insurance are as follows:

i) Savings in risk management expenditure;

ii) Some savings from the cost of taking insurance policy;

iii) No payment of premium on the assets of the organization;

iv) Industry's claims experience does not increase organization’s cost of risk transfer;

v) There will be direct incentive to reduce and control the risk of loss;

vi) There will be no disputes arising as no contact exists between an insurer and insured in the event of loss;

vii) Funds would be available for engaging qualified personnel for the insurance department.

Demerits in self insurance are as follows:

i) A catastrophic loss without insurance policy could lead to the liquidation of an organization.

ii) An aggregate of losses could have the same effect as a catastrophic loss.

iii) It could lead to tying down investable funds for purpose of risk financing.

iv) Self insurance leads to incurring extra cost on the employment of staff for the insurance unit.

v) Lack of access to technical advice from insurance company on risk management and control.

vi) Contribution to the risk financing funds may not be exempted for tax purposes.

SAE 3.

Categorizations of the severity of loss are as follows:

i. Negligible

ii. Marginal

iii. Critical

iv. Catastrophic

SAE 4.

A risk manager should take cognizance of the following in relation to incidents of risk.

i) There is a fast, authorized and visible control of risk incident and its aftermath;

ii) Damage is controlled as far as is possible;

iii) Security and safety issues are controlled;

iv) Damage assessments are received with assurance and acted upon;

v) The brand value is protected;

vi) Instantaneous responsibilities are met; and

vii) The return to 'business as usual' is accelerated.

7.0 REFERENCES/FURTHER READINGS

Crockford, Neil (1986). An Introduction to Risk Management (2 ed.). Cambridge, UK: Woodhead-Faulkner.

Dorfman, Mark S. (2007). Introduction to Risk Management and Insurance (9 ed.). Englewood Cliffs, N.J: Prentice Hall.

Hubbard, D. (2009). The Failure of Risk Management: Why It's Broken and How to Fix It, New Jersey: John Wiley & Sons.

Malonis, Jane A. (Ed) (2000). Encyclopedia of Business, 2nd Edition. Detroit: Gale Group.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

Wilcox J.F. (1996). "Risk Management in the Oil Industry", *Journal Of The chartered Insurance Institute of Nigeria,* Vol. 2, No. 2, June.

Williams, C.A., Smith, M.L. and Young, P.C. (1995). Risk Management and Insurance, 7th Ed, New York: McGraw-Hill, Inc.

- **Further Reading**

Kaye, D. (2004). Risk Management, London*:* Chartered Insurance Institute.

UNIT 13: RISK CONTROL

CONTENTS

1.0 INTRODUCTION

The assessment of risk does not take a corporate entity towards managing risks of operations. The next logical step in the process of effective management of risks in operations of a corporate entity is the risk control. The pre-occupation of any risk manager revolves around taking proactive measures towards curtailing the occurrence of risks in the organization. In this unit, therefore, the discussion is on the discussion of the necessary measures that are to be taken for controlling risks in organizational operations.

2.0 OBJECTIVES

At the end of this study unit, you should be able to:

- explain the control of the level of risk exposure
- discuss the reduction of the chances of risk occurring
- identify measures for guiding against fire and other perils
- mention measures for protecting organization property
- identify measures for the security of personnel and information
- discuss the approach for ensuring safety of company's product
- identify ways for ensuring effective risk control

3.0 MAIN CONTENT

3.1 CONTROL OF RISK

3.1.1 Control of Level of Risk Exposure

It is very necessary for the organizations to ensure that appropriate measures are put in place for controlling risks in operations. This is given the fact that risks in operations could certainly occur thereby leading to disruptions and loss.

Nevertheless, the basic issues are when would they occur and how such risks could occur. It is this type of scenario that compels organizations to institute proactive measures in managing their organizational risk exposures.

Since the risk manager cannot forestall risks in operations from occurring he can only control such incidents or their occurrence, in order to reduce the risk exposures to an acceptable level.

Hence, the risk manager has to pre-occupy himself with issues such as follows:

i) A reduction in the frequency of the organizational risk

ii) Reduction of the impact of the risk that had occurred.
iii) Putting in place a contingent plan to help in mitigating the losses.

Risk management, as Kaye (2004) rightly observed, involves managing the expectations of stakeholders who are looking for secured operations and reasonable returns as well as the survival of the entity.

Therefore, the fundamental role of the risk manager is to ensure that risk incidents do not occur that can cripple the operations of the entity, and thereby give rise to un-attainment of the pre-determined organizational objectives.

Kaye (2004) succinctly observes that the management of an entity cannot do the impossible. Hence this is the more reason why a good risk environment often comprises risk acceptance, risk reduction, impact reduction and contingency planning.

3.1.2 Reducing the Chances of Risk Occurring

There is need for the organization to put in place measures that will reduce the risk of damaging incident from occurring. In order to do this, the organization should ensure that there is an effective and realistic equilibrium between the cost of risk and cost of reducing the likelihood of the risk occurring.

This must be based on individual circumstances contiguous to each specific risk in operations. By implications, such consideration must be fundamental to the organization and its operational strategies.

In related terms, the risk manager should work towards eliminating the impact of the risk incident occurring to the organization. Nevertheless, measures could be put in place to reduce such impact. However, it is instructive to understand that such measures could not be guaranteed to eliminate such risks.

The above consideration apart, the risk manager should put in place tools that will help it respond to an incident. In this regards, measures such as fire extinguishers, evacuation procedures, staff training, emergency succession planning and contingency planning are useful.

A fundamental consideration in risk control is the identification of the types of risk that can occur and their impact, which are capable of disrupting or totally destroying the operations of the organization.

Examples of such risk that could precipitate operational failures are as follows:

i) Loss of the regulatory approval of operating licence;
ii) Destruction of brands that constitute cash cows for the organization;
iii) Loss of public image of the organization and its markets;
iv) Problem of failure of dependence on operating facility, e.g., software;
v) Problems of personnel retention, meeting their payments, etc;
vi) Financial problems such as illiquidity and insolvency;
vii) Loss of competitive advantages and market share; and
viii) Loss of business or financial control over the organization.

SELF ASSESSMENT EXERCISE 1
What are the instances of risk that could imply disaster for an organization?

3.2 CONTROL MEASURES FOR DIFFERENT RISKS

3.2.1 Measures against Fire and Other Perils

These are some of those risks that could occur and cause total destruction to the operations of an organization. These are risks that can be precipitated as a result of the following circumstances:

i) Fire outbreak
ii) Lighting

iii) Explosion
iv) Riot and strike
v) Malicious damage
vi) Impact damage
vii) Earthquake
viii) Storm, tempest and flood, and
ix) Bursting and overflowing of water pipes, tanks and apparatus.

The control measure for these risks is the insurance policy covered under Fire and other Perils insurance. It is the responsibility of the risk manager that these risks are transferred to insurance company.

This is in view of the fact that the cost of replacing damaged operating facilities and materials could be enormous. In addition, the inherent losses could equally lead to stoppage of production.

Kaye (2004) suggested the following measures for handling the risk of fire in the organization:

i) Maintenance of fire extinguishers;
ii) Proximity of fire service;
iii) Heat transfer to neighbouring structures and materials;
iv) Train those in charge of those materials and structure;
v) Constant monitoring of materials movement;
vi) Detection of possibility of fire outbreak;
vii) Active fire safety features;
viii) Education on the way workers should behave and how they will exit the premises;
ix) Precaution against toxicity; and
x) Proper treatment of waste and run off.

The risks manager could consider the issue of developing a fire modeling towards helping him predict the development of a fire and the damaging side effect.

SELF ASSESSMENT EXERCISE 2
What are the relevant measures for guiding against risk of fire outbreak in organization?

3.2.2 Security of Organization Property

The stealing of physical or intellectual assets of the organization could arise in form of armed robbery operation in a place where cash is kept.

Relatedly, fraud could be regarded herein as theft because it denies the organization of its physical assets by actions of outsiders or connivance between outsiders and staff of the organization.

Appropriate policy acts of frauds and similar misdemeanour is the Fidelity Guaranty Insurance policy. However, if there is insider collusion, the insurance organization may not pay for such loss under its theft insurance.

Generally, it is the responsibility of organizations to put in place machineries that will make it difficult for unscrupulous people to steal any of their assets.

Such measures include the following:

- protective fences at controls on points of entry;
- simple locks with a number of keys;
- sophisticated electronic pass card; and
- Closed Circuit Television (CCTV).

3.2.3 Security of Employees and Information

Security in this regards connotes health and safety of the workers within the premises of the organization. In order to ensure this, the risk manager should:

- Institute necessary measures to prevent injuries to all human beings within the organization, employees and visitors;
- Implement the provisions of the Health and Safety at Work Act or Factory Act as the case may be;
- Ensure the provision for First Aids for any emergency cases;
- Educate the workers on safety measure;
- Ensure periodic campaigns on health and safety in the premises;

For the information technology facilities, the risk manager should advise the management on measures to take guiding their information such as:

- The use of passwords for computers
- Have backups against loss of these intangible assets
- Installation of antivirus facilities for the computers;
- Maintaining clean environment for the computers;
- Provision of cooling system for the IT facilities; and
- Proper labeling of the computers and other IT facilities in the company's name.

3.2.4 Safety of Company's Product

Elimination of health and safety risks from the company's products should be implemented because of their consumption or usage by human beings.

The company should ensure that its products meet the required quality standards as stipulated by Standards Organization of Nigeria and NAFDAC.

In addition, some companies have quality control units that monitor the quality of their products to ensure their compliance to laid down standards.

Kaye (2001) points out the problems of poor products such as follows:

a) An impaired product may need to be recalled to the factory for alterations or destruction.

   The process of receiving a large number of widely distributed products is in itself expensive and damaging to customer relationships.

b) Such public recall can cause long-term damage to the confidence the public holds in the products and in the brand name.

c) A poor quality product may also cause damage and loss in a way that could result in litigation against the manufacturer.

3.3 TOWARDS EFFECTIVE RISK CONTROL

For effective risk control in any organization the risk manager has the responsibility of ensuring the following:

- Choose the best solution.
- Implement the chosen solution.
- Carry the people along in implementing the solution.
- Institute a contingency plan
- Improving staff awareness and training
- Critical assessment of staff role in this
- Improve on the plan regularly
- Monitor and respond to change

SELF ASSESSMENT EXERCISE 3

What are the necessary measures for ensuring effective risk control in organizations?

4.0 CONCLUSION

You have observed from the discussion in this study unit that it is imperative for organizations to institute appropriate measures for controlling risks in operations. This calls for proactive measures in managing their organizational risk exposures. In order to control risk exposures of any organization, it is necessary to adopt measures for guiding against operational perils and for safeguarding assets, personnel and information from risks.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Control of Level of Risk Exposure
- Reducing the Chances of Risk Occurring
- Control Measures for Different Risks
- Fire and Other Perils Risks
- Risk of Theft
- Security of Employees and Information
- Safety of Company's Product
- Towards Effective Risk Control

In the next study unit, you will be taken through the discussion on risk financing.

6.0 TUTOR-MARKED ASSIGNMENT

What are the necessary measures for ensuring the security of personnel and information in organization?

Solution to Self Assessment Exercise

SAE 1.

The instances of risk that could imply disaster for an organization are as follows:

- Loss of the regulatory approval of operating licence;
- Destruction of brands that constitute cash cows for the organization;
- Loss of public image of the organization and its markets;
- Problem of failure of dependence on operating facility, e.g., software;
- Problems of personnel retention, meeting their payments, etc;
- Financial problems such as illiquidity and insolvency;
- Loss of competitive advantages and market share; and
- Loss of business or financial control over the organization.

SAE 2.

The relevant measures for guiding against risk of fire outbreak in organization are as follows:

- Maintenance of fire extinguishers;
- Proximity of fire service;
- Heat transfer to neighbouring structures and materials;
- Train those in charge of those materials and structure;
- Constant monitoring of materials movement;
- Detection of possibility of fire outbreak;
- Active fire safety features;
- Education on the way workers should behave and how they will exit the premises;
- Precaution against toxicity; and
- Proper treatment of waste and run off.

SAE 3:

The necessary measures for ensuring effective risk control in organizations are as follows:

- Choose the best solution.
- Implement the chosen solution.
- Carry the people along in implementing the solution.

- Institute a contingency plan
- Improving staff awareness and training
- Critical assessment of staff role in this
- Improve on the plan regularly
- Monitor and respond to change

7.0 REFERENCES/FURTHER READINGS

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Dorfman, Mark S. (2007). Introduction to Risk Management and Insurance (9 ed.). Englewood Cliffs, N.J: Prentice Hall.

Hubbard, D. (2009). The Failure of Risk Management: Why It's Broken and How to Fix It, New Jersey: John Wiley & Sons.

Malonis, Jane A. (Ed) (2000). Encyclopedia of Business, 2nd Edition. Detroit: Gale Group.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

Wilcox J.F. (1996). "Risk Management in the Oil Industry", *Journal Of The chartered Insurance Institute of Nigeria,* Vol. 2, No. 2, June.

Williams, C.A., Smith, M.L. and Young, P.C. (1995). Risk Management and Insurance, 7th Ed, New York: McGraw-Hill, Inc.

- **Further Reading**

Kaye, D. (2004). Risk Management, London*:* Chartered Insurance Institute.

UNIT 14: RISK FINANCING

CONTENTS

1.0 INTRODUCTION

There are many costs and losses which can arise out of the occurrence of risks in the operations of an organization. Some of these costs and losses can be spread while others would have to be borne by the organizations. Hence, it is necessary for organizations to consider the financing of such costs and losses inherent in the risks associated with their operations. In this study unit, therefore, the discussion is on intricacies of risk financing.

2.0 OBJECTIVES

After studying this unit, you should be able to:

- identify the elements of cost in incidents of risk
- mention the determinants of risk financing
- list and explain the methods involved in risk financing
- identify and discuss the methods involved in alternative risk transfer
- discuss the risk financing plan

3.0 MAIN CONTENT

3.1 COST INHERENT IN INCIDENTS OF RISK

It is imperative that the discussion on risk financing should commence with the understanding of the cost which is inherent in risk. Basically some financial losses that are associated with risk which cannot be categorized in pecuniary terms cannot be incorporated into risk financing.

The initial monetary costs of a risk incident include:

- court awards;
- litigation costs;
- fines; and
- cost of replacing damaged or lost assets.

In addition to the above list of costs, there is the consequential loss which may involve costs associated disruptions in operations such as stoppage of production.

For instance, if the factory of a manufacturing is burnt down, and the organization decided to continue with their production irrespective of such loss, it may incur an increased cost in producing its products elsewhere.

In production operations, there are some elements of overhead cost such as standing charges to pay regardless of the level of operations, and in extreme case of stoppage of production.

Such costs which the organization incurs whether it is producing or not include:

- cost of capital;
- salaries of administrative staff;
- insurance charges;
- Rental payments for premises;
- Wear and tear of assets;
- Severance payments for employees; and
- Redundancy payments.

An important consideration in the cost of risk is the timing of payments. Basically, timing of payments for the affected parties could affect the cost of risk. For instance, there would payments of awards and interest if payments are delayed, for liability claims that go to the court for jurisdiction.

The administrative cost of reinstating a loss should also be considered by the organization in order to determine the option on the financing of a risk event.

You will recall that an organization could choose to retain risk internally. This can be achieved through the creation of the infrastructure that can handle large number of individual risk incidents and their impacts on the operations of the organization.

It is on the basis of the above factors in terms of costs associated with risk incidents that the organization could decide on the option available in handling its risks.

Such options of handling risks include:

- Whether to retain a risk internally by the organization;
- Whether to establish funds to cater for risks incidents;
- How much of risk funds to be established;

- Whether to take insurance policies for risks; and
- Whether to use the other risk financing techniques.

SELF ASSESSMENT EXERCISE 1

Mention the various costs inherent in incidents of risk.

3.2 DETERMINANTS OF RISK FINANCING

The risk manager must critically assess the organization's risk exposure in order to determine the appropriate options to adopt in handling risks.

Therefore, the risk manager has to take appropriate steps to:

i) Evaluate the potential cost that the organization could have in a given period.
ii) Note the maximum probable losses as well as its maximum possible loss.
iii) Measure the total loss alongside tile maximum single possible loss.
iv) Identify the cost that could need to be funded.
v) Quantify the level of cost that can be absorbed without a significant impact on the organization itself.
vi) Identify potential sources of funding to meet larger losses
vii) Consider how such funds can be available at the time they are needed
viii) The risk manager can choose from any of the available options.

SELF ASSESSMENT EXERCISE 2

What are the determinants of risk financing?

3.3 CORPORATE RISK FINANCING

The fact that organizations today are increasingly exposed to varied risks in their operations has compelled most organizations not to rely only insurance policy as a means of funding their risk exposure.

Therefore, corporate entities have to engage in the use of a combination of different funding mechanisms so as to ensure that their strengths are fully utilized for the benefits of their healthy operations.

The available mechanisms for financing of risk exposures in organizations are identified and discussed below.

1. Self - Funding

This involves setting aside some funds through which organizations indemnify themselves in the event of a loss. In most cases, the corporate entities set aside funds to finance small losses while they transfer bigger losses to other organizations.

These types of losses are those that could fall within the insurance excess, deductibles or franchises. Let us examine these two concepts.

- **Excess**

  This is the amount which the owners of property insured bear for each and every loss. It implies that once there is a loss, the insured will bear this while the insurance company will pay the exact amount insured against by the property owner.

- **Deductible**

  This is the large excess which is involuntarily taken by the owner of the property or the insured in order to have some discounts on the premium he would pay. It operates in the same way as the excess.

- **Franchise**

This is the amount of loss which the insured bears provided the loss is not more than the franchise limit. For instance, if the policy has a franchise of N5,000 where the insured suffers a loss of N5,001, the insurer will pay everything; this is in consideration of the fact that the loss is within the franchise limit.

2. Internal Fund

In this mechanism, the organization sets aside fund to enable it to finance losses internally.

The organization may decide to create the fund over a period of years while still insuring during the formative years. The fund so created and funded on continuous basis called "Sinking fund".

The purpose of sinking fund is to build the fund in order to use it financing unexpected loss in the future.

3. Captive Insurer

The organization may decide to establish its insurance company to underwrite its risk in place of the internal fund method. This is regarded as captive arrangement.

Therefore, captive insurers are insurance companies established by large firms, whose operational engagement is not related to insurance business. The purpose is to use the captive to underwrite their risks and any other risks that could come their way in the process of operations.

In most cases, captives are usually established and owned especially by those owned by Aviation, Oil and Gas Companies are established in tax haven countries.

Tax haven countries are those economies in which companies pay little or no taxes at all. These countries include Barbados, Bermuda, Luxemburg, the Isle of Man, the Cayman Islands, Gibraltar, Mauritius, etc.

A captive company could arrange reinsurance to protect itself. Basically, the risk manager is usually in charge with the management of the captive company. In some cases, he is the Chief Executive officer of such Company.

4. Risk Sharing

The mechanism evolves when members of some profession decide to come together so as to share any loss any member of such group might have suffered. Such professionals could be lawyers, accountants or medical doctors.

This type of practice of risk sharing mechanism is found professionals in the informal sector of the economy such the artisans. It also finds favour in age – grade groups in Igbo land.

5. Risk Transfer

This mechanism involves transferring risks to another company that specializes in the management of risks such as insurance companies.

Hence, instead of financing risks within the organization directly through internal fund or indirectly through captive insurer or risk sharing, the organization could transfer its risks to other parties.

6. Transfer to Counter Party

This involves the use of contractual agreement to transfer the risk exposures of a company to others. This involves the process of negotiations between the parties of which the associated risks to the contract are identified and transferred to one of the parties.

Examples of such arrangements are:

- A lease for the use of property whereby the tenant is made to bear any risks that would affect the property during the tenancy period.
- Use of financial penalty clause for the delay in delivery of goods.

- A publishing contract clause identifying the ownership of the intellectual property to either author or publisher.

7. Transfers to Insurance Company

This is a common practice whereby an organization decides to transfer its risks to insurance company so as to concentrate on its areas of operation. It is normally regarded as a viable risk funding mechanism.

In the event of risk occurring to the insured property, the organization will approach the insurer to indemnify it to the extent of the insurance terms, limits and conditions.

Hence, the insurance market provides an economic vehicle for the sharing of risk exposures confronting organizations. The cost of risk borne by organizations in form of premium is normally paid on periodic basis with the hope of indemnity when the risk occurs.

The mechanism involves pooling together of homogenous insurance risks and the premiums on them constitute pooled funds which will be utilized for compensation in the event of occurrence of such risks.

The rationale for insurance of any risk is the large number of such risk. The related premium payable by each insured party to the insurance pool is small. This thereby reduces the cost of each individual risk premium payable as a result of the large number of the insured.

SELF ASSESSMENT EXERCISE 3

What are the ways through which a company can fund its risk exposures?

3.4 ALTERNATIVE RISK TRANSFER

According to Kaye (2004), the notion of alternative risk transfer for being used alongside insurance policy involves arrangement for trading risk, or rather by transfer through the capital market.

The mechanism is called either Alternative Risks Transfer or Nontraditional Risk Transfer method. In this arrangement, the carrier of risks is the capital market as against insurance company at reinsurance market.

There are some reasons that inform the use of this mechanism and they are as follows:

i) Recent string of very high catastrophic losses has exposed the inability of the insurance industry to respond adequately;
ii) Enormous catastrophic losses imply that catastrophe capacity is, at times, not fully available, leading to wildly fluctuating prices,
iii) The spread and scale of the capital markets means that catastrophe exposure can be spread over a wider capital source, instead of solely within the insurance and' reinsurance market.

For the mechanism, the types of products available in the capital market are derivatives, catastrophe bonds, and catastrophe risk exchange, among others.

The various products for alternative risk transfer are as identified and discussed below.

1. Derivatives

This is a product that protects organization against movements in price and in interest rates. It involves a forward contract that will enable someone to buy or sell a specified asset, at a specified date in the future and at a specific price.

For the purpose of risk, an organization sells its risks at a specified amount over a period of time for compensation at a specified amount in the future if the risk takes with a specified period of time.

For example, an organization could sell a loss following a catastrophe within a period of, say, three years at N5 million. This implies that if the organization suffers such loss during the period the buyer of the risks will pay the company the sum of N5 million.

2. Catastrophe Bond

This is a type of bond that pays some return to an investor on the basis of insurance event rather than financial event. Therefore, the instrument helps organizations to transfer their risks beyond the insurance market to the capital market.

In this arrangement, the organization buys a bond for its risks in the capital market. At the instance of the occurrence of the event of a loss, e.g., a catastrophe, the bondholders will pay the amount of the bond to the buyer.

3. Catastrophe Risk Exchange

This mechanism is an electronic system which trades in insurance risk whereby licensed risk bearers exchange their catastrophe exposures.

The mechanism makes it possible for the risk of earthquakes, which is common in Japan, to be spread across the world. In the same vein, the risk of hurricane in US can equally be spread down to other parts of world particularly in the advanced economies.

4. Loans

The access to loan funds can afford an organization the opportunity to finance its loss after a catastrophe. This is in view of the fact that a company can borrow funds to take care of the financing its loss.

This option is strongly not recommended because it could make the organization that borrows to finance risk exposure to become a captive to the benefactor. This is because it would be operating to generate funds with which to pay back the loan, which may also be problematic; thereby putting the operations of the organization in jeopardy.

In the case of small business, it may be very difficult to have access to loans with which to engage in financing of their risk exposure. Above all, it will be suicidal for such business to go for borrowing in financing of risks.

5. Put Options

The mechanism makes it possible for the organization to exercise its right to act to be after a catastrophe loss. It is then that the damaged organization could use the contracted right to sell a pre-agreed level and type of quality to the financial organization that provides the option.

The security that the organization can sell is the non- voting preferred shares, which do not affect the balance sheet values.

SELF ASSESSMENT EXERCISE 4

What are methods that can be utilized in the alternative risk transfer?

3.5 RISK FINANCING PLAN

According to Kaye (2001), there is a template which can be put in place by an organization to enable it finance a loss, taking into consideration the maximum possible loss.

The possible template for financing plan on financing could be as the figure below.

Figure 13.1: Template for Financing Plan on Risk Exposure

RISK	EXPOSURE	MAX POSSIBLE LOSS	FUNDING	
1	Killer Risk Brand value Customer Confidence Employer skill base Optional failure Business and financial controls	Destruction	Investment in Risks controls Risk management Impact reduction Contingency planning	
2	Liabilities: Public Employee Product Professional Director and officers	<N500m	Retained	<N10m
			Captive 50m	N10-
			Insurance of captive 500m	N50m-
			Claims outsourced	Handling
3	Assets (any one risk)	N100m	Retained	<N10m
			Captive 50m	N10-
			Insurance of captive	N50m-
			500m capital market 1000m	

Source: Kaye, D. (2004). Risk Management. London: Chartered Insurance Institute, p. 18.

4.0 CONCLUSION

You have observed from the discussion in this study unit that there are many costs and losses inherent in occurrence of risks in operations of any organization. There are some mechanisms that are available for risk financing, such as self-funding, internal fund, captive insurer, risk sharing, risk transfer, transfer to counter party and transfer to insurance company. There are some other methods available for financing risk exposures, which are embedded in alternative risk transfer. These methods include are derivatives, put options, loans, catastrophe bond, and catastrophe risk exchange.

5.0 SUMMARY

In this study unit, topics covered include the following:

- Cost Inherent in Incidents of Risk
- Determinants of Risk Financing
- Corporate Risk Financing
- Alternative Risk Transfer
- Risk Financing Plan

In the next study unit, you will be taken through the discussion on risk and quality control.

6.0 TUTOR-MARKED ASSIGNMENT

What are the determinants of risk financing? Mention and explain the methods of risk financing.

Solution to Self Assessment Exercise

SAE 1.

The various costs inherent in incidents of risk include:

- cost of capital;

- salaries of administrative staff;
- insurance charges;
- Rental payments for premises;
- Wear and tear of assets;
- Severance payments for employees; and
- Redundancy payments.

SAE 2.

The determinants of risk financing are as follows:

vii) Evaluate the potential cost that the organization could have in a given period.
viii) Note the maximum probable losses as well as its maximum possible loss.
ix) Measure the total loss alongside tile maximum single possible loss.
x) Identify the cost that could need to be funded.
xi) Quantify the level of cost that can be absorbed without a significant impact on the organization itself.
xii) Identify potential sources of funding to meet larger losses
vii) Consider how such funds can be available at the time they are needed
viii) The risk manager can choose from any of the available options.

SAE 3.

i. Self - Funding

This involves setting aside some funds through which organizations indemnify themselves in the event of a loss. In most cases, the corporate entities set aside funds to finance small losses while they transfer bigger losses to other organizations.

ii. Internal Fund

In this mechanism, the organization sets aside fund to enable it to finance losses internally.

iii. Captive Insurer

The organization may decide to establish its insurance company to underwrite its risk in place of the internal fund method. This is regarded as captive arrangement.

iv. Risk Sharing

The mechanism evolves when members of some profession decide to come together so as to share any loss any member of such group might have suffered. Such professionals could be lawyers, accountants or medical doctors.

v. Risk Transfer

This mechanism involves transferring risks to another company that specializes in the management of risks such as insurance companies.

vi. Transfer to Counter Party

This involves the process of negotiations between the parties of which the associated risks to the contract are identified and transferred to one of the parties.

vii. Transfer to Insurance Company

This is a common practice whereby an organization decides to transfer its risks to insurance company so as to concentrate on its areas of operation. It is normally regarded as a viable risk funding mechanism.

SAE 4.

i. Derivatives

For the purpose of risk, an organization sells its risks at a specified amount over a period of time for compensation at a specified amount in the future if the risk takes with a specified period of time.

ii. Catastrophe Bond

This is a type of bond that pays some return to an investor on the basis of insurance event rather than financial event. Therefore, the instrument helps organizations to transfer their risks beyond the insurance market to the capital market.

iii. Catastrophe Risk Exchange

This mechanism is an electronic system which trades in insurance risk whereby licensed risk bearers exchange their catastrophe exposures.

iv. Loans

The access to loan funds can afford an organization the opportunity to finance its loss after a catastrophe. This is in view of the fact that a company can borrow funds to take care of the financing its loss.

v. Put Options

The mechanism makes it possible for the organization to exercise its right to act to be after a catastrophe loss. It is then that the damaged organization could use the contracted right to sell a pre-agreed level and type of quality to the financial organization that provides the option.

7.0 REFERENCES/FURTHER READINGS

Crockford, Neil (1986). An Introduction to Risk Management (2 ed.). Cambridge, UK: Woodhead-Faulkner.

Dorfman, Mark S. (2007). Introduction to Risk Management and Insurance (9 ed.). Englewood Cliffs, N.J: Prentice Hall.

Hubbard, D. (2009). The Failure of Risk Management: Why It's Broken and How to Fix It, New Jersey: John Wiley & Sons.

Malonis, Jane A. (Ed) (2000). Encyclopedia of Business, 2nd Edition. Detroit: Gale Group.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

Wilcox J.F. (1996). "Risk Management in the Oil Industry", *Journal Of The chartered Insurance Institute of Nigeria,* Vol. 2, No. 2, June.

Williams, C.A., Smith, M.L. and Young, P.C. (1995). Risk Management and Insurance, 7th Ed, New York: McGraw-Hill, Inc.

- **Further Reading**

Kaye, D. (2004). Risk Management, London*:* Chartered Insurance Institute.

UNIT 15: RISK AND QUALITY CONTROL

CONTENTS

1.0 INTRODUCTION

The necessity to safeguard the operations of businesses from risk exposures informs the establishment of concrete measures towards mitigating their occurrence. Such control strategies have also been instituted for managing quality of products in manufacturing organizations. The discussion in this study unit, therefore, is on the measures which are available for controlling risks and quality of products and services.

2.0 OBJECTIVES

At the end of this study unit, you should be able to:

- discuss the essence of risk and quality management
- identify the measures for safeguarding operations of organizations
- identify relevant measures for safeguarding quality of products and services
- discuss management of risk in project execution
- identify the determinants of effective management of project risk

3.0 MAIN CONTENT

3.1 ESSENCE OF RISK AND QUALITY MANAGEMENT

3.1.1 Safeguarding Operations of Organizations

The need to safeguard the operations of businesses from varied risk exposures and their grave impacts precipitates some concrete measures to be taken towards checkmating their occurrence.

The advent of maritime transportation brings with it some devastating risks to both the ships and their cargoes. In order to mitigate the risks that are associated with maritime perils (e.g., shipwrecks) the marine policy was introduced.

Hence, the marine insurance has been introduced to cater for the maritime risks due to the fact the seas hold enormous advantages in transportation of cargoes. The initiative was taken by Lloyds of London.

The management of risks in business was rekindled by the challenges of fire to business entities, particularly as a result of Great London Fire outbreak of 1666. This fire outbreak precipitated the introduction of fire insurance in 1667 by Nicholas Barbone.

Thus in order to mitigate the perils of maritime transportation and fire outbreak relevant mechanisms of managing risks have been instituted as in existence today. The same rationale informs the advent of insurance schemes for managing air and land transportation.

In order to manage risk with proactive measures, some devices or appliances were introduced to prevent the occurrence of some perils and in some instances to reduce the magnitude of their impact to business entities, other organizations and human beings.

Examples of such appliances and devices include:

- fire extinguishers,
- locks,
- protective boots,
- crash helmets,
- protective cloths,
- safety glasses or goggles,

- fire service, etc.

The list above on devices for proactive measures against risks and their impacts is by no means exhaustive. There are other numerous devices and measures in existence for managing risk exposures of organizations.

SELF ASSESSMENT EXERCISE 1

Mention the measures instituted overtime for managing risk exposures of organizations.

3.1.2 Safeguarding Quality of Products and Services

In order to ensure safe and quality products and crafts from the stable of cottage industries and manufacturing establishments workers and craftsmen were trained for efficiency. Quality control measures were also instituted for managing quality of products in manufacturing organizations.

In ensuring safe and quality products and services quality inspectors and quality control engineers were developed and used in industrial organizations. These professionals make use of quality control tools developed overtime for managing quality of products and services.

A giant leap in quality management was achieved in the sixties when Walter A. Shewhart at Bell Telephone Laboratories, developed statistical control charts in 1967. The charts were meant to be used to indicate the sources of variations within processes. They were used to control the quality of output through improvement of the processes that delivered the output.

Therefore, credit for the use of statistical charts for quality control goes to the efforts of Walter A. Shewhart. The introduction and implementation of Shewhart's control charts at Bell Telephone Laboratories signaled the inauguration of statistical quality control.

The work and advocacy of Edwards Deming (1900-1987) coupled with writings of Joseph M. Juran and Armond V. Fergebaum popularized the concept of total quality management. Quality control is being applied to all areas of production from design to sale.

The application of total quality management in various industrial organizations improves quality both products and services, which in turn enhances their productivity and competitive positions significantly.

In addition, the efforts of Japanese, Genichi Taguchi, resulted in the formulation new statistical designs of experiment for quality. The Japanese companies in making use of such quality control techniques in their production earn some competitive leverage in relation to other companies around the world.

3.2 MANAGEMENT OF RISK IN PROJECT EXECUTION

Risk management is an integral part of the project selection and management process. Therefore, it should be accorded adequate consideration in project execution.

In project executive, there are many sources of risk and they come in many shapes. Generally, projects are risky ventures by their nature. Therefore, careful management of project risk is imperative to repeatable success.

There are quantitative methods or formulations that play important role in risk management. Project managers are supposed to possess profound knowledge of the use of such tools in managing risks associated with project executive.

Project ventures in most cases normally aim to create new and unique products, service, and processes that are not in existence before. Levine (2002) observes that some of the well-known catastrophes simply attest to the breadth of the magnitude of risk in project.

The catastrophes associated with projects around the world have compelled all organizations to embrace risk management in their operations. In support of this practice, Kerzner (2000) puts it that these days, world class and outstanding companies integrate five main management processes in their operations.

Such management processes include the following considerations:

- Project management;
- Total quality management;
- Concurrent engineering;
- Risk management; and
- Change management;

In management of risks in projects, it is important for the risk managers and project managers to make risk management an integral part of project planning schedule. In this wise, they have to identify and address risk factors before they get out of hand in the process of project execution.

Risk management in project execution affords the organization to excel better in at project management. The implication is that there would be more customers patronizing the organization and more and more projects would be executed.

The complex nature of project execution and the risk involved earns the attention of notable authorities in project management. Accordingly such authorities observe that:

- Risk management automatically becomes more critical for global projects.
- Issues bordering on environment will clearly defined and people well trained in the process.
- Such environmental issues when clearly understood will give problem a non-threatening avenue to raise risk issues.
- It is also very important for the project manager to establish good relationship with the team members to increase the level of comfort and encourage open communications.
- Having a simple risk management process in project execution is better than not having any process at all.
- Risk management is a part of the value-added chain in the process of project execution.
- Risk management is a major value-added function of organizations' project management process.
- A single form should be developed with the intent of predicting the likelihood of failure of a program based on its current status.
- Some counter measures should be instituted to mitigate project risk based on information obtained project team.

Furthermore, information obtained from each member of the project team through a survey should be taken general review. The implication is that any concern which is considered worthy of further analysis is taken note of by the project manager for consideration in periodic meetings.

SELF ASSESSMENT EXERCISE 2

Mention important considerations in management of risk in relation to complex nature of project execution and the risk involved.

3.3 DETERMINANTS OF EFFECTIVE MANAGEMENT OF PROJECT RISK

Basically, there is no project without its own risk during the period of execution and the expected returns on investment from it. Therefore, the following actions are necessary towards effective management of project risk.

i) The managers should identify the allied risks to the project.
ii) Determine the level of risk that could be retained by the organization.
iii) Determine the methods to minimize or reduce the impact of the identified risks on the organization.
iv) Use appropriate methods that could physically reduce the risk exposure of the organization.
v) Determine the risk that should be transferred with either through insurance or contractual agreement.
vi) Factor in the possible risks of project executive to the cost.
vii) Assess the implication of project risk on its financing.
viii) Assess the implication of project risk on expected returns.

SELF ASSESSMENT EXERCISE 3

What are the determinants for effective management of project risk?

4.0 CONCLUSION

You have understood from the discussion in this last unit of this study material that it is imperative for organizations to institute concrete measures with which to control the risk exposures inherent in operations. Furthermore, such measures should include the relevant strategies for ensuring the effective management of quality of products and services from the stable of business organizations.

5.0 SUMMARY

In this last unit of the study material, topics covered include the following:

- Essence of Risk and Quality Management,
- Safeguarding Operations of Organizations ,
- Safeguarding Quality of Products and Services,
- Management of Risk in Project Execution, and
- Determinants of Effective Management of Project Risk.

6.0 TUTOR-MARKED ASSIGNMENT

Mention the measures instituted overtime for managing risk exposures of organizations. What are the determinants of effective management of project risk? Solution to Self Assessment Exercise

SAE 1.

The measures instituted overtime for managing risk exposures of organizations are as follows:

- fire extinguishers,
- locks,
- protective boots,
- crash helmets,
- protective cloths,
- safety glasses or goggles,
- fire service, etc.

SAE 2.

The important considerations in management of risk in relation to complex nature of project execution and the risk involved include:

- Risk management automatically becomes more critical for global projects.
- Issues bordering on environment will clearly defined and people well trained in the process.
- Such environmental issues when clearly understood will give problem a non-threatening avenue to raise risk issues.
- It is also very important for the project manager to establish good relationship with the team members to increase the level of comfort and encourage open communications.
- Having a simple risk management process in project execution is better than not having any process at all.
- Risk management is a part of the value-added chain in the process of project execution.
- Risk management is a major value-added function of organizations' project management process.
- A single form should be developed with the intent of predicting the likelihood of failure of a program based on its current status.
- Some counter measures should be instituted to mitigate project risk based on information obtained project team.

SAE 3.

The determinants for effective management of project risk include:

i) The managers should identify the allied risks to the project.

ii) Determine the level of risk that could be retained by the organization.

iii) Determine the methods to minimize or reduce the impact of the identified risks on the organization.

iv) Use appropriate methods that could physically reduce the risk exposure of the organization.

v) Determine the risk that should be transferred with either through insurance or contractual agreement.

vi) Factor in the possible risks of project executive to the cost.

vii) Assess the implication of project risk on its financing.

viii) Assess the implication of project risk on expected returns.

7.0 REFERENCES/FURTHER READINGS

Crockford, Neil (1986). An Introduction to Risk Management (2 ed.). Cambridge, UK: Woodhead-Faulkner.

Dorfman, Mark S. (2007). Introduction to Risk Management and Insurance (9 ed.). Englewood Cliffs, N.J: Prentice Hall.

Hubbard, D. (2009). The Failure of Risk Management: Why It's Broken and How to Fix It, New Jersey: John Wiley & Sons.

Kerzner, H. (2000). Applied Project Management; Best Practices On Implementation, New York: John Wiley & Sons, Inc.

Levine, H. A. (2002). Practical Project Management, New York: John Wiley & Sons.

Malonis, Jane A. (Ed) (2000). Encyclopedia of Business, 2nd Edition. Detroit: Gale Group.

Pritchet, S.T. et al (1996). Risk Management and Insurance, 7th Ed., New York: West Publishing Company.

Trieschmann, J.S., Gustavson, S.G. and Hoyt, R.E (2001). Risk Management and Insurance, 11th Ed, Illinois: Spout – Western College Publishing.

Wilcox J.F. (1996). "Risk Management in the Oil Industry", *Journal Of The chartered Insurance Institute of Nigeria,* Vol. 2, No. 2, June.

Williams, C.A., Smith, M.L. and Young, P.C. (1995). Risk Management and Insurance, 7th Ed, New York: McGraw-Hill, Inc.

- **Further Reading**

Kaye, D. (2004). Risk Management, London: Chartered Insurance Institute.