

**COURSE  
GUIDE****CRD 407  
PROJECT PLANNING MANAGEMENT, MONITORING  
AND EVALUATION**

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## **INTRODUCTION**

The aims and objectives of this course *Project Planning Management, Monitoring and Evaluation* are to expose learners to rudiment of Project management. Human life cycle is a unique project created by God. All being generally engage in variety of project, in order to not to be marginalized on ideal methods of Project Planning Management, Monitoring and Evaluation one need core background of this course which can be applied in all areas of human endeavour.

## **WHAT YOU WILL LEARN IN THIS COURSE**

The course will give you in a brief of what you need to know in *Project Planning Management, Monitoring and Evaluation*. At the end of the course you will be proficient in Project Planning Management, Monitoring and Evaluation techniques and practicalities.

## **WORKING THROUGH THIS COURSE**

The course will consist of fifteen (15) units i.e. three (3) modules at five (5) units per module. The material has been developed to suit undergraduate students in Faculty of Management Sciences at the National Open University of Nigeria (NOUN) by adopting an approach that highlights the key areas of Management in private and public enterprises. A student who successfully completes the course will surely be in enhanced position to manage different sections in private and public organizations concerning Project Planning Management, Monitoring and Evaluation. 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.

Each unit contains a Tutor-Mark Assignment, which must be done as stipulated.

## **ASSESSEMENT**

The final grade in the course will have two components; continuous assessment and final examination. Basically, the tutor-marked assignment will form the continuous assessment while National Open University of Nigeria (NOUN) will inform you about the final examination

## **HOW TO GET MOST FROM THIS COURSE**

Working through this assignment and exercises will help on complete this course, you are required to read the study units, read set books and

read other materials provided by the National Open University of Nigeria (NOUN). 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. 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. Note the following:

- i. Read this course guide thoroughly
- ii. Organize a study schedule.
- iii. Whatever method you choose to use you should decide on it and write in your own dates for working on each
- iv. Once you have created your own study schedule, do everything you can to stick to it. The major reason that students fails that they get behind with their coursework
- v. For each unit, read the introduction and the objectives.
- vi. Read through the materials work through the unit.
- vii. At the end of the each unit, review the objective and see how many of them you have achieved
- viii. Do the tutor-marked assignment and submit as required.
- ix. Proceed unit by unit throughout the course.

## **SUMMARY**

CRD 407 *Project Planning Management, Monitoring and Evaluation* aims to expose the Undergraduate graduate student to the nitty-gritty of *Project Planning Management*, be it private or public, corporate or small business enterprises, government or nongovernmental organizations. Upon completing the course, you will be equipped with the knowledge required to be a good project manager. We hope you enjoy your acquaintances with this course at National Open University of Nigeria (NOUN). We wish you every success in the future.




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## **MODULE 1      PROJECT PLANNING MANAGEMENT, MONITORING AND EVALUATION**

Unit 1	Project Planning
Unit 2	Project Controlling and Project Control Systems
Unit 3	Seven Principles of Planning By John C. Maxwell
Unit 4	Four Types of Planning for Sustainable Business Success
Unit 5	The Planning Process - An Obvious Non-negotiable to Long-term Success

### **UNIT 1      PROJECT PLANNING**

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3.2	Executing
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3.6	Monitoring and Controlling Cycle
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
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#### **1.0      INTRODUCTION**

Project Planning, Management, Monitoring and Evaluation concepts and principles of planning, types of planning and plans; strategic planning, participatory planning; the plan of work, the work calendar, stakeholder analysis; the logical framework and its application in project development, monitoring and evaluation; project supervision, leadership and Project administration and management; the concept of monitoring and evaluation, reasons for monitoring and evaluation, methods used in monitoring and evaluation.

#### **2.0      OBJECTIVES**

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

- define the following briefly; project, project planning, management, monitoring and evaluation concepts and principles of planning,

- identify the stages in planning and execution
- explain monitoring and controlling cycle
- discuss explicitly monitoring and controlling process group processes
- difference between Monitoring and Evaluation

### **3.0 MAIN CONTENT**

A project is a temporary endeavor designed to produce a unique product, service or result with a defined beginning and end (usually time-constrained, and often constrained by funding or deliverables) undertaken to meet unique goals and objectives, typically to bring about beneficial change or added value. The temporary nature of projects stands in contrast with business as usual (or operations), which are repetitive, permanent, or semi-permanent functional activities to produce products or services. In practice, the management of these two systems is often quite different, and as such requires the development of distinct technical skills and management strategies.

Projects may be audited or reviewed while the project is in progress. Formal audits are generally risk or compliance-based and management will direct the objectives of the audit. An examination may include a comparison of approved project management processes with how the project is actually being managed. Each project should be assessed for the appropriate level of control needed: too much control is too time consuming, too little control is very risky. If project control is not implemented correctly, the cost to the business should be clarified in terms of errors and fixes.

Monitoring is a deliberate systematic means of collection and analysis of information as a project progresses which intended at adequate efficiency and effectiveness of a project embarked on with thorough use of resources. It facilitates organization to determine whether the resources available are enough and are being utilized satisfactorily. Project monitoring is establishing measure that projects are on targets and indicators to measure advancement and achievement.

Evaluation involves conscious checking into project effects vis-à-vis the agreed slated plans on accomplishment scale. It concern with outcome process of a blueprint which can be done during and after the project. Evaluation is not an end product but a process expected to take place throughout the stages of a project or action. Evaluation is a process used to ascertain what has happened during a given activity, whether a programme or activity is working, and whether the initial commitment has been carried out and achieved In the course of the project it is done to ensure any contingency that can hamper the project is resolved and

plans are amended to suit goals of the project. While after project evaluation is aim at understanding success or fail at the same time outline the means, measure and medium for improvement ahead of next implementation of project plan.

### The differences between Monitoring and Evaluation

<i>Indices of variation</i>	<i>Monitoring</i>	<i>Evaluation</i>
Timing	Continuous, throughout the project	Periodic review at significant points in the project progress
Scope	Day to day activities, output, indicators of progress and change	Access overall delivery of outputs and progress towards objectives and goals
Main participants	Project staff, project users	External evaluators, facilitators, project users, project staff, sponsors
Process	Regular meetings, interviews, monthly, quarterly reviews	Extraordinary meeting, additional data collection exercise etc
Written output	Regular reports and updates to project users, management and sponsors	Written report with recommendations for changes to project-presented in workshops to different stakeholder
Information users	Government agencies, researchers, companies	Stakeholders, top-management team, external facilitator's, staff etc.
Intent	translates objectives into performance indicators and set targets	examines implementation process for better significant accomplishment vis-à-vis offers recommendations for improvement on slated project
Activities	activities are linked with resources to aligned with objectives	activities assess specific contribution of project in relations to result

Adapted: from Kepa (1997)

## 3.1 Planning

After the initiation stage, the project is planned to an appropriate level of the main purpose is to plan time, cost and resources adequately to

estimate the work needed and to effectively manage risk during project execution. As with the Initiation process group, a failure to adequately plan greatly reduces the project's chances of successfully accomplishing its goals.

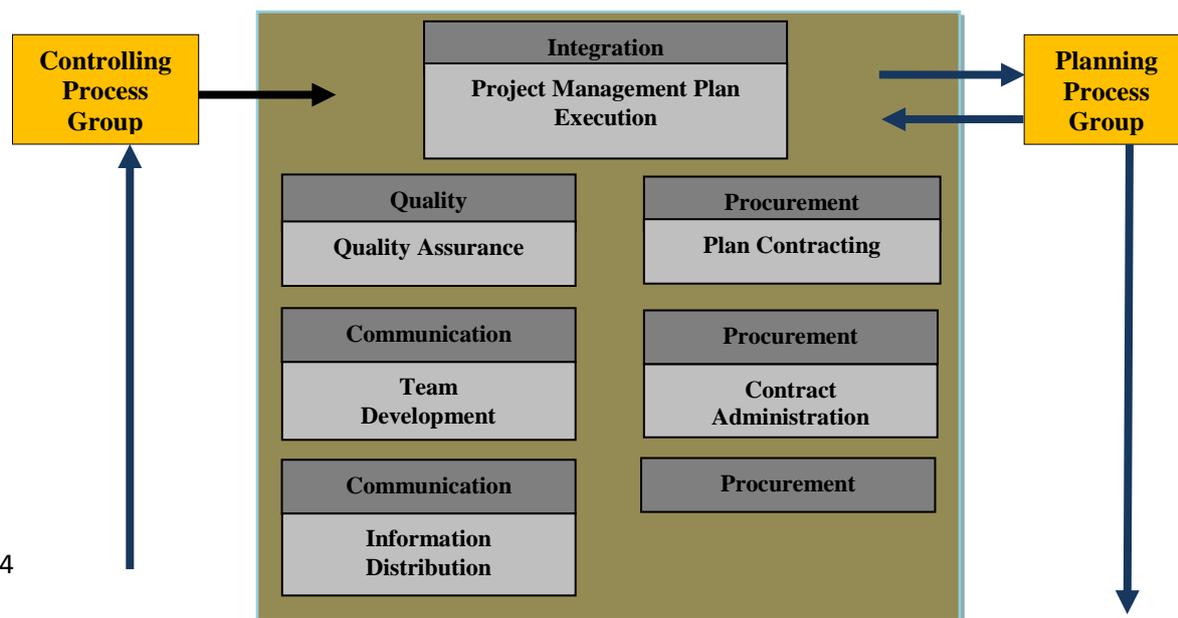
Project planning generally consists of:

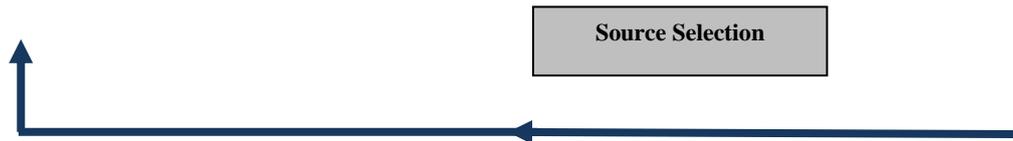
- determining how to plan (e.g. by level of detail or Rolling Wave planning);
- developing the scope statement;
- selecting the planning team;
- identifying deliverables and creating the work breakdown structure;
- identifying the activities needed to complete those deliverables and networking the activities in their logical sequence;
- estimating the resource requirements for the activities;
- estimating time and cost for activities;
- developing the schedule;
- developing the budget;
- risk planning;
- gaining formal approval to begin work.

Additional processes, such as planning for communications and for scope management, identifying roles and responsibilities, determining what to purchase for the project and holding a kick-off meeting are also generally advisable.

For new product development projects, conceptual design of the operation of the final product may be performed concurrent with the project planning activities, and may help to inform the planning team when identifying deliverables and planning activities.

### 3.2 Executing

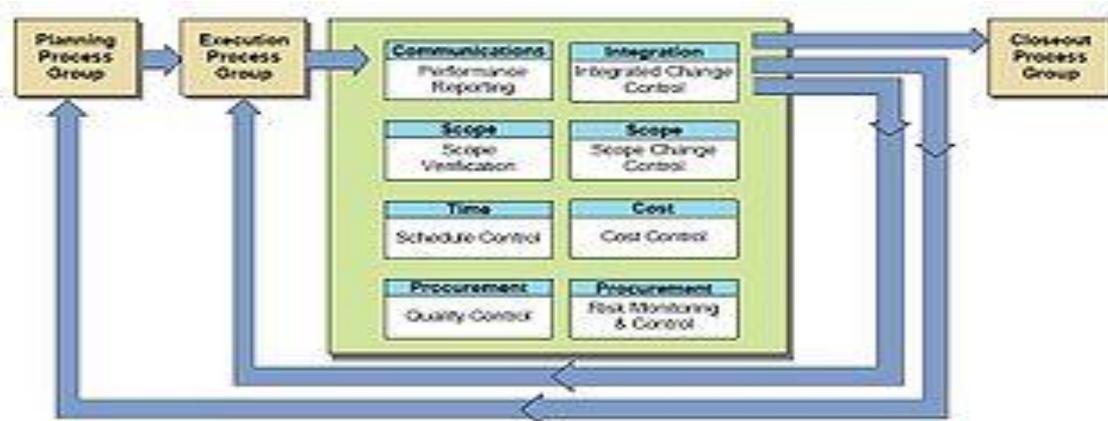




### 3.3 Executing Process Group Processes

The execution/implementation phase ensures that the project management plan's deliverables are executed accordingly. This phase involves proper allocation, co-ordination and management of human resources and any other resources such as material and budgets. The output of this phase is the project deliverables.

### 3.4 Monitoring and Controlling



### 3.5 Monitoring and Controlling Process Group Processes

Monitoring and controlling consists of those processes performed to observe project execution so that potential problems can be identified in a timely manner and corrective action can be taken, when necessary, to control the execution of the project. The key benefit is that project performance is observed and measured regularly to identify variances from the project management plan.

Monitoring and controlling includes:

- Measuring the ongoing project activities ('where we are');
- Monitoring the project variables (cost, effort, scope, etc.) against the project management plan and the project performance baseline (*where we should be*);
- Identifying corrective actions to address issues and risks properly (*How can we get on track again*);

- Influencing the factors that could circumvent integrated change control so only approved changes are implemented.

In multi-phase projects, the monitoring and control process also provides feedback between project phases, in order to implement corrective or preventive actions to bring the project into compliance with the project management plan.

Project maintenance is an ongoing process, and it includes:

- Continuing support of end-users
- Correction of errors
- Updates to the product over time



### 3.6 Monitoring and Controlling Cycle

In this stage, auditors should pay attention to how effectively and quickly user problems are resolved.

Over the course of any construction project, the work scope may change. Change is a normal and expected part of the construction process. Changes can be the result of necessary design modifications, differing site conditions, material availability, contractor-requested changes, value engineering and impacts from third parties, to name a few. Beyond executing the change in the field, the change normally needs to be documented to show what was actually constructed. This is referred to as change management. Hence, the owner usually requires a final record to show all changes or, more specifically, any change that modifies the tangible portions of the finished work. The record is made on the contract documents – usually, but not necessarily limited to, the design drawings. The end product of this effort is what the industry terms as-built drawings, or more simply, "as built." The requirement for providing them is a norm in construction contracts. Construction document management is a highly important task undertaken with the aid an online or desktop software system, or maintained through physical documentation. The increasing legality pertaining to the construction industries maintenance of correct documentation has caused the increase in the need for document management systems.

When changes are introduced to the project, the viability of the project has to be re-assessed. It is important not to lose sight of the initial goals and targets of the projects. When the changes accumulate, the forecasted result may not justify the original proposed investment in the project. Successful project management identifies these components, and tracks and monitors progress so as to stay within time and budget frames already outlined at the commencement of the project.

#### **4.0 CONCLUSION**

The discussion in this unit takes us through the understanding of the concept of Project Planning Management, Monitoring and Evaluation from definition to process of planning. Controlling. Monitoring and cycle entailed.

#### **5.0 SUMMARY**

In this unit, we treated contextual nature of project, Project Planning Management, Monitoring and Evaluation with consideration to detailed key steps involves in cycle of it. Project is an ongoing process with evaluation to ensure desired outcome is achieved by understanding the target, reexamine it in line with scope of the project and amend necessary correction when need arise to accomplish slated goals.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

1. What are the process involved in project Monitoring and controlling
2. Why are changes introduced to a project
3. Write short note on the following:
  - i. Project
  - ii. Project Management
  - iii. Monitoring and controlling

#### **7.0 REFERENCES/FURTHER READINGS**

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight children".*Pediatrics*.124 (2):717–28. doi:10.1542/peds.2008-2816. PMID 19651588.

Anderson, J. R; Albert, M. V; Fincham, J. M (Aug 2005). "Tracing problem solving in real time: fMRI analysis of the subject-paced Tower of Hanoi". *JCognNeurosci*.17(8):1261–74.doi:10.1162/0898929055002427. PMID 16197682.

Welsh, M. C; Huizinga, M (Jun 2001). "The development and preliminary validation of the Tower of Hanoi-revised". *Assessment*.8 (2):167–76. doi:10.1177/107319110100800205. PMID 11428696.

Kepa (1997) Summary of Differences between Monitoring and Evaluation (online).

## **UNIT 2 PROJECT CONTROLLING AND PROJECT CONTROL SYSTEMS**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Project Managers
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Project controlling should be established as an independent function in project management. It implements verification and controlling function during the processing of a project in order to reinforce the defined performance and formal goals.

Project Controls cover a number of elements such as:

Design, Cost, Schedule, Quality and Risk. A number of disciplines cover this area.

The tasks of project controlling are also:

- the creation of infrastructure for the supply of the right information and its update
- the establishment of a way to communicate disparities of project parameters
- the development of project information technology based on an intranet or the determination of a project key performance indicator system (KPI)
- divergence analyses and generation of proposals for potential project regulations.

- the establishment of methods to accomplish an appropriate project structure, project workflow organization, project control and governance
- creation of transparency among the project parameters.

Control systems are needed for cost, risk, quality, communication, time, change, procurement, and human resources. In addition, auditors should consider how important the projects are to the financial statements, how reliant the stakeholders are on controls, and how many controls exist. Auditors should review the development process and procedures for how they are implemented. The process of development and the quality of the final product may also be assessed if needed or requested. A business may want the auditing firm to be involved throughout the process to catch problems earlier on so that they can be fixed more easily. An auditor can serve as a controls consultant as part of the development team or as an independent auditor as part of an audit.

## **2.0 OBJECTIVES**

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

- state factors that necessitated for independence of control unit in project planning management, monitoring and evaluation
- elucidate on the role of a project manager
- highlight the formal system development guides for a project plan
- explain the methods used for project controlling

## **3.0 MAIN CONTENT**

### **3.1 Project Managers**

A project manager is a professional in the field of project management. Project managers can have the responsibility of the planning, execution, controlling, and closing of any project typically relating to the construction industry, engineering, architecture, computing, and telecommunications. Many other fields of production engineering, design engineering, and heavy industrial have project managers.

A project manager is the person accountable for accomplishing the stated project objectives. Key project management responsibilities include creating clear and attainable project objectives, building the project requirements, and managing the triple constraint (now including more constraints and calling it competing constraints) for projects, which is cost, time, and scope for the first three but about three additional ones in current project management.

A project manager is often a client representative and has to determine and implement the exact needs of the client, based on knowledge of the firm they are representing. The ability to adapt to the various internal procedures of the contracting party, and to form close links with the nominated representatives, is essential in ensuring that the key issues of cost, time, quality and above all, client satisfaction, can be realized.

Project control is that element of a project that keeps it on track, on-time and within budget. Project control begins early in the project with planning and ends late in the project with post-implementation review, having a thorough involvement of each step in the process.

Fulfillment and implementation of these tasks can be achieved by applying specific methods and instruments of project controlling. The following methods of project controlling can be applied:

- investment analysis
- cost–benefit analysis
- value benefit analysis
- expert surveys
- simulation calculations
- risk-profile analysis
- surcharge calculations
- milestone trend analysis
- cost trend analysis
- target/actual-comparison.

Businesses sometimes use formal systems development processes. These help assure systems are developed successfully. A formal process is more effective in creating strong controls, and auditors should review this process to confirm that it is well designed and is followed in practice. A good formal systems development plan outlines:

- A strategy to align development with the organization's broader objectives
- Standards for new systems
- Project management policies for timing and budgeting
- Procedures describing the process
- Evaluation of quality of change

#### **4.0 CONCLUSION**

Project controlling is an interdependent function which needs a prolific manager and certain methods to achieve it, harnessing human and materials resources coupled with development guide lead to attaining design target in project execution.

## 5.0 SUMMARY

In this unit, we discussed project controlling and project control systems role of a manager and other measure used for controlling a project. The need for proper control system, development guide and formal approach are germane to outcome of project.

## 6.0 TUTOR-MARKED ASSIGNMENT

1. Who is a project Manager?
2. State six role of a project manager in controlling a project.

## 7.0 REFERENCES/FURTHER READINGS

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight children". *Pediatrics*.124(2):717–28. doi:10.1542/peds.2008-2816. PMID 19651588.

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Kepa (1997) Summary of Differences between Monitoring and Evaluation (online).

## **UNIT 3 SEVEN PRINCIPLES OF PLANNING BY JOHN C. MAXWELL**

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- 3.0 Main Content
  - 3.1 Four Types of Planning
  - 3.2 Reasons Why People Don't Plan
  - 3.3 Qualities of Principle-Centered Planning
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

If you've ever gone whitewater rafting, then you know the importance of planning. Whenever the raft approaches rapids, the guide has to plan the best route to navigate safely through them. If the guide fails to plan, then the raft can easily smash into a rock or capsize.

### **2.0 OBJECTIVES**

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

- discuss the four types of a project manager
- highlight cause of individual not planning
- enumerate the principles of planning

### **3.0 MAIN CONTENT**

#### **3.1 Four Types of Planning**

- 1) *Passive planning* happens when leadership allows the raft to travel downstream at the mercy of the current rather than steering, rowing, and turning. This kind of non-planning eventually leaves you unprepared to face whitewater rapids. Worse yet, in the absence of a plan, the current may take the raft over the edge of a dreaded waterfall.
- 2) *Panic planning* happens only after the raft is in trouble. At this point, all of the organization's resources are scrambled in a reactionary pattern in an attempt to solve the problem. With panic planning, you may or may not come out alive and well, but you are guaranteed some bumps and bruises.
- 3) *Scientific planning* is viable, but can be laborious, mechanical, and often ends up abandoned in the process. Imagine if a raft guide constantly tried to measure the depth of the water, the distance between rocks, the wind speed, and the water current. Although the information might be helpful, oftentimes the water would be moving too swiftly to take the measurements. In a like manner, leaders often have to respond to change in an instant. There's no time to collect scientific data on all of the variables before deciding which course of action is best.
- 4) *Principle-centered planning* is the key to effectiveness. It is the artistic or leadership approach. Principle-centered planning recognizes that life in general (and people in particular) can't be graphed on a chart, but sees that planning still remains essential.

### **3.2 Reasons Why People Don't Plan**

You don't have to be in leadership very long to learn that planning pays off. Even so, many people don't plan. Here are four reasons why people neglect planning. They don't possess planning skills or knowledge. Some people don't have an innate ability to project themselves into the future. They've never been taught to prioritize their day or to prepare for tomorrow.

They're caught in the tyranny of the urgent, and they believe that they don't have time. Some people allow themselves to be pulled into the vortex of minutiae. As a consequence, they end up buried under a sea of details, and they can't pull their heads above water long enough to plan.

They don't like the perceived hassle of planning. Instead of planning one event at a time, they become overwhelmed by the mountain of things to plan.

Many people don't plan because the outcome varies greatly. "After all," they say, "When I do make a plan, it normally doesn't end up happening, so why bother?" Why Planning Is Essential We all have desires and dreams, yet we'll never accomplish our dreams in life just by wanting them bad enough. Planning bridges the gap between our desires and dreams by calling us to action. As noted by William Danforth, "No plan is worth the paper it is printed on unless it starts you doing something." A concrete plan supplies us with tangible steps to take in the direction of our dreams.

### 3.3 Qualities of Principle-Centered Planning

- Principle-centered planning allows us to be flexible without losing focus.
- Principle-centered planning allows us to be creative without losing concentration
- Planning is the structure. Principle-centered planning is the flesh
- Planning is the roadmap. Principle-centered planning is the movement
- Planning is the idea. Principle-centered planning is the action
- Planning is the paper. Principle-centered planning is the power.

In summary it's been said, "By failing to plan, you plan to fail." Wholeheartedly agree. People who ignore planning handicap themselves and stifle their effectiveness.

The good news about planning is that it's a relatively simple discipline. Anyone can do it. No PhD is required to make a solid plan - only a window of uninterrupted time for focused thought.

Seven principles to guide your planning process: You may have heard the expression, "Rome wasn't built in a day." Well, Rome wasn't built on accident, either. The coliseum, the pantheon, Saint Peter's basilica... these architectural marvels weren't the offspring of happenstance. They were created only after architects had spent countless hours developing blueprints of the buildings' foundations and structural frameworks.

A blueprint, as the outline of the building plan, is a vitally important document. Even so, the blueprint only represents a small step in the planning process. Before a building can be constructed, its planners must also budget expenses, consider what raw materials to use, and determine how to recruit labor. A good building plan starts with a blueprint, but extends far beyond it.

It's hard to achieve anything consequential without a written plan. However, putting a plan on paper isn't enough. Regardless of how thorough, concrete, or ingenious a plan may be, it won't happen unless additional ingredients are injected into the planning process. In my experience, I've observed seven principles that are absolutely critical to successful planning.

- 1) **The Principle of Passion** When we're passionless, we procrastinate on the plan or burnout trying to execute it. With passion, we approach our plans with excitement and a sense of urgency. Passion gives planning energy. Passion also gives planning focus. As Tim Redmond says, "There are many things that will catch my eye, but there are only a few things that will catch my heart. It is those I consider to pursue." Passion narrows our vision so that the plan dominates our attention and distractions fade into the background.
- 2) **The Principle of Creativity** Of the seven planning principles, we violate the principle of creativity the most. By gravitating to concreteness, we sacrifice creativity. We settle for what's easy to wrap our minds around, and we neglect to wrestle with harder, more difficult dilemmas. Leaders are too busy doing to think and provide ideas. Even the rare leaders who think creatively often neglect to encourage the people around them to do the same. Consequently, a majority of teams rely on one person for creative thought and end up starved for good ideas.
- 3) **The Principle of Influence** When you prepare your plans, ask yourself the question, "Am I able to influence the resources needed to fulfill my planning and mission?" To accomplish your plan, you'll need influence over people, finances, and your schedule. The support of people, especially other influencers, can make or break your plan. Make a priority to build relationships with them. In particular, find the key to their lives by learning what matters most to them. If you continually add value to the influencers around you in meaningful ways, then you'll be more likely to receive their assistance when you need it.
- 4) **The Principle of Priorities** I'm amazed by the amount of people who begin to plan their careers before taking the time to prioritize their lives. You have no right, nor any reason, to start planning your life until you know what you're living for and what you're willing to die for. It's important to find your purpose so that you run, not on the fast track, but on your track.

The key to a prioritized life is concentration followed by elimination. As Peter Drucker observed, "Concentration is the key to economic results. No other principle of effectiveness is violated as constantly today as the basic principal of concentration. Our motto seems to be, let's do a little bit of everything." We must cease to dabble in everything before we can become excellent at anything.

- 5) **The Principle of Flexibility** In leadership, be mentally prepared that not everything will go according to your plans. Then, when plans unfold unexpectedly, you'll be prepared to see new opportunities. Some of the best things I've received in life have been surprises that I could never have planned in advance.  
When plans go awry, don't just stand there. By staying in motion, you create movement. Be resourceful enough to improvise when circumstances push you off course.
- 6) **The Principle of Timing** I credit Robert Schuller for teaching me a lesson about timing-the peak-to-peak principle. Most of the time, our decisions are based on our emotional environment rather than reality. When we're in the valleys of life, we don't see clearly. Our perspective is limited, and all we see are the problems around us. In the valleys we make decisions, not to better ourselves, but to escape our problems. Never make a major decision in the valleys. Wait until you get to the peak where you can see clearer and farther. By reserving big choices for the peaks, you'll avoid making rash decisions that you'll regret later.
- 7) **The Principle of Teamwork:** A worthwhile plan ought to be bigger than your abilities. You shouldn't be able to accomplish it alone. Each of us has areas of weakness, blind spots, and shortcomings. Unless we rely on a team to help us, our plans succumb to our personal limitations.  
A sign in Coach Bill Parcells' office stated his philosophy plainly, "Individuals play the game but teams win championships." What we can do alone pales in comparison to the potential we have when we work together.  
Review Putting: a plan on paper is easy; putting a plan into practice takes leadership. I trust these seven principles will aid your efforts to translate written plans into reality.

#### **4.0 CONCLUSION**

Planning is a process and purposive in nature, it evolves over thoughtful outcome, successful articulate of plan project hinged on certain principles which bring about desired result depending on managerial principles adopted.

## 5.0 SUMMARY

The discussion in this unit entails; planning, types of planning and planning principles, all this signifies that plan is key process in Project Planning Management, Monitoring and Evaluation .it pertinent to mention that he who fail to plan has plan to fail.

## 6.0 TUTOR-MARKED ASSIGNMENT

1. State the four types of planning and explain it
2. Explain five reason why individual do not plan ahead

## 7.0 REFERENCES/FURTHER READINGS

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight children".*Pediatrics*.124(2):717–28. doi:10.1542/peds.2008-2816. PMID 19651588.

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## UNIT 4 FOUR TYPES OF PLANNING FOR SUSTAINABLE BUSINESS SUCCESS

### CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Planning Definitions
  - 3.2 Strategic Plan
  - 3.3 Tactical Plan
  - 3.4 Operational Plan
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### 1.0 INTRODUCTION

May 6, 2015 in The Great Game of Business

Springfield Remanufacturing Corporation (SRC) is well-known for high-involvement business planning structure.

Using this structure, we develop our strategic plans as a collective organization – involving literally *everyone* in the company, from hourly employees to management, in the planning process.

While it might seem extensive, this process proves an integral component of our open-book management structure. Over the years, involving everyone at all levels of the company has also proven repeatedly to generate positive results.

SRC uses four types of key planning that translate directly to our sustainable business success. Let's dig deeper into each of these four key types of planning.

### 2.0 OBJECTIVES

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

- elucidate planning in occupation
- explain five various nature of plan
- understand the crucial component of strategic planning
- highlight the characteristics of each of the plan

### 3.0 MAIN CONTENT

#### 3.1 Planning in Occupation

The nature of planning in occupation varies and is peculiar with goals associated with it, irrespective of public or private occupation seven reasons serve as motives for planning; namely; finance, strategic, contingency, crucial succession, tactical and operational.

**Financing Planning:** Long-term profit planning aimed at generating greater return on assets, growth in market share, and at solving foreseeable problems.

**Strategic Planning:** A systematic process of envisioning a desired future, and translating this vision into broadly defined goals or objectives and a sequence of steps to achieve them.

**Contingency Planning:** A contingency plan is a plan devised for an outcome other than in the usual (expected) plan. It is often used for risk management when an exceptional risk that, though unlikely, would have catastrophic consequences. Contingency plans are often devised by governments or businesses.

**Succession Planning:** Succession planning is a process for identifying and developing internal people with the potential to fill key business leadership positions in the company. Succession planning increases the availability of experienced and capable employees that are prepared to assume these roles as they become available.

1. **Financial Planning:** It goes without saying that you must have a tangible financial plan for your business, but with the infinite number of ways you can develop yours, what do you do? When it comes to our financial planning, we've found the strongest results after following this handful of "musts":
  - a. The plan must have buy-in from employees at all levels of the organization.
  - b. The plan must be clearly communicated.
  - c. The plan must be rooted in reality.
  - d. The plan must be forward-looking.
  - e. The plan must be reviewed formally; progress must be tracked on an ongoing basis.

2. **Strategic Planning:** In addition to having a strong financial outlook, your company also needs a clear strategic vision. (Again, you probably already know this – it isn't rocket science!) We suggest doing a quick online search – you'll find several great templates that will guide you in establishing your strategic vision. The best one? Try the "High Involvement Planning Playbook."

Our simple SRC guidelines to strategic planning are as follows:

- You must have a believable, predictable sales line for the strategy to work.
  - You must clearly analyze and address your company's opportunities, threats, strengths and weaknesses.
  - You must have a clear intelligence on your competitors.
  - You must have a realistic and detailed understanding of the marketplace and the economy.
3. **Contingency Planning:** A sturdy contingency plan is essential to growth and business success. After all, you need a "Plan-B" or a backup plan to launch when the unexpected happens, right? Contingency planning makes you proactive and serves as a source of innovation *and* business growth in and of itself (double win!). In short, a good contingency represents a researched and vetted realistic opportunity. If disaster strikes, activate contingencies in order to fill a void.
  4. **Succession Planning:** What if your manager or an executive left suddenly? Is your organization prepared to replace a major player on your team? While "missing" them is one thing, making sure your organization continues to grow beyond their departure is crucial to your overall success (obviously!). To make sure you don't skip more than a beat, you need to beef up your succession planning process.

Succession planning, however, needs to be more than just naming a successor for major company positions. A strong succession plan creates opportunities for managers as well as succession candidates because with a developed successor in place, managers are primed to move into new positions and pursue opportunities when those arise as well. Therefore, succession candidates must be groomed, developed and prepared to step into a new role when the opportunity arises so that the multi-shift can happen simultaneously as needed (not to put off until candidates are "ready"). You won't experience that lag time trying to

figure out who can take over their responsibilities and continue on your path to growth without wasting time or additional resources.

## 3.2 Strategic Plan

A strategic plan is a high-level overview of the entire business, its vision, objectives, and value. This plan is the foundational basis of the organization and will dictate decisions in the long-term. The scope of the plan can be two, three, five, or even ten years.

Managers at every level will turn to the strategic plan to guide their decisions. It will also influence the culture within an organization and how it interacts with customers and the media. Thus, the strategic plan must be forward looking, robust but flexible, with a keen focus on accommodating future growth.

The crucial components of a strategic plan are:

### 1. Vision

Where does the organization want to be five years from now? How does it want to influence the world?

These are some of the questions you must ask when you delineate your organization's vision. It's okay if this vision is grandiose and idealistic. If there is any room to wax poetic within a plan, it is here. Holding ambitions to "make a dent in the Universe" (Apple/Steve Jobs) is acceptable, as is a more realistic vision to create the most "customer-centric company on Earth" (Amazon).

### 2. Mission

The mission statement is a more realistic overview of the company's aim and ambitions. Why does the company exist? What does it aim to achieve through its existence? A clothing company might want to "bring high street fashion to the masses", while a non-profit might want to "eradicate polio".

### 3. Values

"Inspire. Go above & beyond. Innovate. Exude passion. Stay humble. Make it fun"

These aren't fragments from a motivational speech, but Fab.com's values. Like Fab, each organization has its own values. These values will guide managers and influence the kind of employees you hire. There is no template to follow when jotting down the values. You can

write a 1,000 page essay, or something as simple as Google's "Don't be Evil" – it's all up to you.

As you can see, there are really no rules to writing the perfect strategic plan. This is an open-ended, living document that grows with the organization. You can write whatever you want in it, as long as it dictates the future of your organization.

For inspiration, just search for the value/mission/vision statement of your favorite companies on Google. Or, consider taking this course on business planning for average people.

### **3.3 Tactical Plan**

The tactical plan describes the tactics the organization plans to use to achieve the ambitions outlined in the strategic plan. It is a short range (i.e. with a scope of less than one year), low-level document that breaks down the broader mission statements into smaller, actionable chunks. If the strategic plan is a response to "What?", the tactical plan responds to "How?".

Creating tactical plans is usually handled by mid-level managers.

The tactical plan is a very flexible document; it can hold anything and everything required to achieve the organization's goals. That said, there are some components shared by most tactical plans:

#### **1. Specific goals with fixed deadlines**

Suppose your organization's aim is to become the largest shoe retailer in the city. The tactical plan will break down this broad ambition into smaller, actionable goals. The goal(s) should be highly specific and have fixed deadlines to spur action – expand to two stores within three months, grow at 25% per quarter, or increase revenues to \$1mn within six months, and so on.

#### **2. Budgets**

The tactical plan should list budgetary requirements to achieve the aims specified in the strategic plan. This should include the budget for hiring personnel, marketing, sourcing, manufacturing, and running the day-to-day operations of the company. Listing the revenue outflow/inflow is also a recommended practice.

#### **3. Resources**

The tactical plan should list all the resources you can muster to achieve the organization's aims. This should include human resources, IP, cash resources, etc. Again, being highly specific is encouraged.

#### 4. Marketing, funding, etc.

Finally, the tactical plan should list the organization's immediate marketing, sourcing, funding, manufacturing, retailing, and PR strategy. Their scope should be aligned with the goals outlined above.

If you're struggling to create a strong tactical plan, this course on drafting great business plans will point you in the right direction.

### 3.4 Operational Plan

The operational plan describes the day to day running of the company. The operational plan charts out a roadmap to achieve the tactical goals within a realistic timeframe. This plan is highly specific with an emphasis on short-term objectives. "Increase sales to 150 units/day", or "hire 50 new employees" are both examples of operational plan objectives.

Creating the operational plan is the responsibility of low-level managers and supervisors.

Operational plans can be either single use, or ongoing, as described below:

#### 1. Single use plans

These plans are created for events/activities with a single occurrence. This can be a one-time sales program, a marketing campaign, a recruitment drive, etc. Single use plans tend to be highly specific.

#### 2. Ongoing plans

These plans can be used in multiple settings on an ongoing basis. Ongoing plans can be of different types, such as:

- **Policy:** A policy is a general document that dictates how managers should approach a problem. It influences decision making at the micro level. Specific plans on hiring employees, terminating contractors, etc. are examples of policies.
- **Rule:** Rules are specific regulations according to which an organization functions. The rules are meant to be hard coded and should be enforced stringently. "No smoking within premises", or "Employees must report by 9 a.m.", are two examples of rules.

- **Procedure:** A procedure describes a step-by-step process to accomplish a particular objective. For example: most organizations have detailed guidelines on hiring and training employees, or sourcing raw materials. These guidelines can be called procedures.

Ongoing plans are created on an ad-hoc basis but can be repeated and changed as required.

Operational plans align the company's strategic plan with the actual day to day running of the company. This is where the macro meets the micro. Running a successful company requires paying an equal attention to now just the broad objectives, but also how the objectives are being met on an everyday basis, hence the need for such intricate planning

#### **4.0 CONCLUSION**

Planning have variance methods either in public or private some core areas which planning approach in job are discussed include; finance, strategic, contingency, crucial succession, tactical and operational. The measure, methods and uniqueness of each has being explained which can aid Project Planning Management, Monitoring and Evaluation.

#### **5.0 SUMMARY**

The discussion in this unit entails; nature of occupation planning with components and factors associated with it. The need to understand planning, proper utilization through integration of vision, mission and values resources, and budgets e.t.c. makes blueprint accomplished.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

1. List the types of nature of occupation planning and explain five.
2. Explain the types of operational plan.

#### **7.0 REFERENCES/FURTHER READINGS**

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight children".*Pediatrics*.124(2):717–28. doi:10.1542/peds.2008-2816. PMID 19651588.

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Kepa (1997) Summary of Differences between Monitoring and Evaluation (online).

## **UNIT 5 THE PLANNING PROCESS – AN OBVIOUS NON-NEGOTIABLE TO LONG-TERM SUCCESS**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Planning
  - 3.2 Planning process
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Whether or not you utilize an open-book management style at your company, implementing a strong and consistent process for financial, strategic, contingency and succession planning will create a strong foundation for your business as well as set your company up for sustainable business success. These four key planning processes mean to set your organization up for high levels of growth and success, a goal that just about every business has in common. These are; Inventory resources, identify problems, determine objectives and analyze resources data

### **2.0 OBJECTIVES**

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

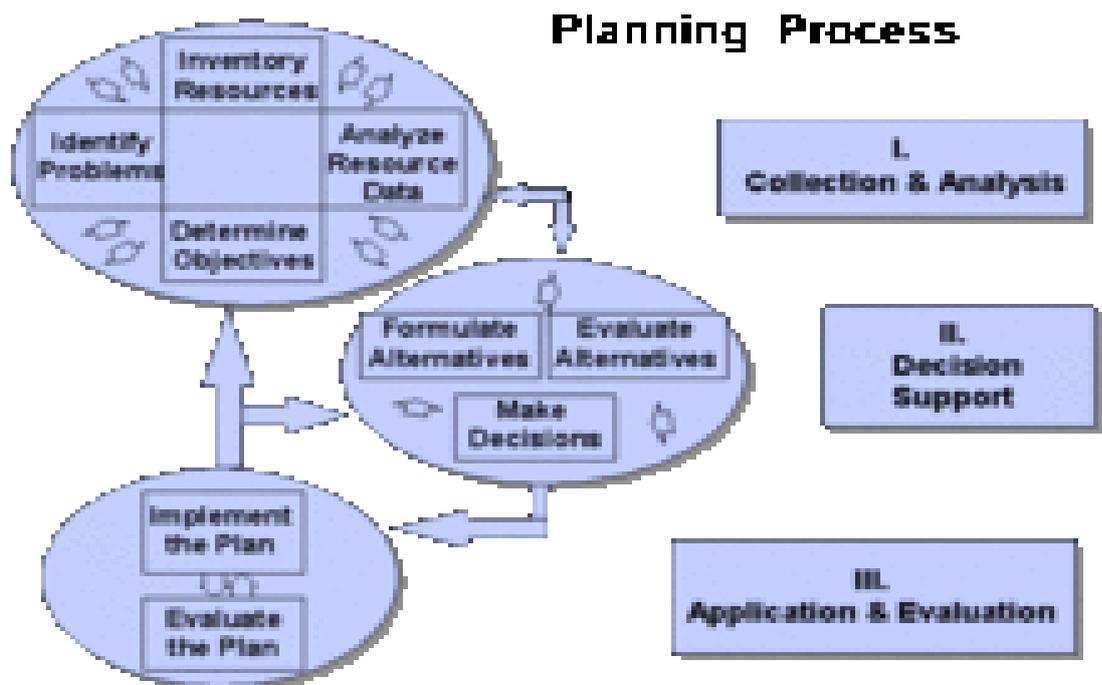
- understand nature of planning as part of management
- explain planning process
- elucidate on four key planning process
- question ask in order to achieve strategic planning

### 3.0 MAIN CONTENT

#### 3.1 Planning

Planning is the part of management concerned with creating procedures, rules and guidelines for achieving a stated objective. Planning is carried out at both the macro and micro level. Managers need to create broad objectives and mission statements as well as look after the day to day running of the company.

#### 3.2 Planning Process



#### Example of planning process framework.

Patrick Montana and Bruce Charnov outline a three-step result-oriented process for planning:

1. Choosing a destination
2. Evaluating alternative routes, and
3. Deciding the specific course of your plan.

In organizations, planning is a management process, concerned with defining goals for company's future direction and determining on the missions and resources to achieve those targets. To meet the goals, managers may develop plans such as a business plan or a marketing plan. Planning always has a purpose. The purpose may be achievement of certain goals or targets.

Main characteristics of planning in organizations are:

- Planning increases the efficiency of an organization.
- It reduces the risks involved in modern business activities.
- It utilizes with maximum efficiency the available time and resources.

The concept of planning is to identify what the organization wants to do by using the four questions which are:

- Where are we today in terms of our business or strategy planning?
- Where are we going?
- Where do we want to go?
- How are we going to get there?

Baobab (2000) contended that project planning vis-à-vis monitoring as a -page summary which comprises the following information of a project in order to ensure it capture the intent of organizational goal.

<b>Why</b>	a project is carried out (= who/what will benefit?)
<b>What</b>	the project is expected to achieve (= utilization of services)
<b>How</b>	the project is going to achieve its outputs/results (= measures executed)
<b>Which</b>	external factors are crucial for the success of the project (= risks and frame conditions)
<b>How</b>	we can assess the success (= indicators)
<b>Where</b>	we will find the data required to assess the success (= means of verification)

**Source:** Baobab (2000)

### 3.3 Four Key Planning Process

#### Inventory resources

It is concerned with in-depth look at availability of resources to facilitate the slated process and is crucial to planning process for better logistic strategy. It enables project manager or organization to know resource capacity, source for more and modalities to achieve the plan.

#### Identify problems

Planning process does not come without problems some are obvious, some are hidden, some emerged in the process irrespective of the issues it is paramount to recognize the problems and develop how and ways to solve it as planning itself is about identification of problem to tackle. It a process of significantly understanding the issue to be resolved.

### **Determine objectives**

planning may be for short or long term irrespective of it, planning prior motive is to achieve pre-set objectives. Objectives determination engulfs core action of essence of the planning process.

### **Analyze resources data**

This aspect deals with scrutiny of data and resources breakdown of fact for further action in planning progression, all detailed information, resources and other cogent logistics are thoroughly examined for final action to be executed.

## **4.0 CONCLUSION**

Planning process is interrelated of various germane factors towards common goals with each working together as a system for best result.

## **5.0 SUMMARY**

In this unit we discussed nature of planning as a management procedure to achieve stated goal with consideration for micro and Marco level planning harmonized to achieve better outcome.

## **6.0 TUTOR-MARKED ASSIGNMENT**

State main characteristics of planning in an organization

Explain:

- i. Why
- ii. What
- iii. How
- iv. Which
- v. How and
- vi. Where of project planning

## **7.0 REFERENCES/FURTHER READINGS**

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight children".*Pediatrics*.124(2):717–28. doi:10.1542/peds.2008-2816. PMID 19651588.

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## **MODULE 2      ROLE,      RESPONSIBILITIES      AND                                  SKILLS**

Unit 1	The Project Management Roles
Unit 2	Project Planning and Implementation
Unit 3	Responsibilities of the Project Manager
Unit 4	Management Skills
Unit 5	Monitoring and Evaluation

### **UNIT 1      THE PROJECT MANAGEMENT ROLES**

#### **CONTENTS**

1.0	Introduction
2.0	Objectives
3.0	Main Content
	3.1    Role of the Project Manager
	3.2    Integrator
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Readings

#### **1.0    INTRODUCTION**

The need to explore roles and responsibilities of project manager and learner identify those roles are germane to project success itself.

#### **2.0    OBJECTIVES**

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

- explain the role of a project manager
- understand the concept of integrator

#### **3.0    MAIN CONTENT**

##### **3.1    Role of the Project Manager**

One of the mistakes development organizations make is appointing a project manager only for the depth of her technical skills. It is not unusual to find a good engineer being promoted to project manager just for her technical competence. While it is true that one must have a good understanding of the technical aspects of the project, the principal areas of competence that are required in the management competence areas and these include communicating; planning, negotiating, coaching, decision-making, and leadership. These skills are often overlooked at the time of hiring or appointing a project manager; and they are supplemented by the functional support provided by the organizations back-office operations, such as accounting, human resource and logistics.

Another common mistake is the poor definition of the role of the project manager, usually the job descriptions are too vague and put too much emphasis on the technical competencies required for the job, organizations make the mistake to assign the project manager the tasks and activities designed for the project, this may be true for certain small projects but for most of them the role of the project manager is one of integrator, communicator, and facilitator.

The project manager is the ultimate person accountable for the project she is the one whose job it is to make sure the project is done, and would be the principal contact person for the donor, beneficiaries and the key stakeholders. As responsible for the project she needs to make key decisions regarding the management of the resources available to the project, and to do that the organization's senior management needs to appoint the project manager, and give her the appropriate level of responsibility and authority for project direction and control.

A Project Manager is also accountable to the Program Manager or Organization Director, depending on the size of the organization; and is accountable to the beneficiaries for delivering the project as planned. The Project Manager has the delegated authority to commit

The Project Management Roles and Responsibilities the organization on matters regarding performance that are within the scope of the project and the contract with the donor.

### **3.2 Integrator**

A key responsibility of the project manager is to ensure the proper integration of the project management processes and coordinate the different phases through the project management cycle, that ensures that all areas of the project come together to deliver the project to a

successful conclusion. This is the main role of the project manager; it is not related to the technical responsibilities of the project, which in most cases are managed by the project staff. The role of integrator involves three specific areas of responsibility:

- Developing the project management plans, which involves the development of all project planning documents into a consistent, coherent project plan document
- Implementing the project plan, which involves the execution of the project plan and ensuring all activities are performed by all the people involved
- Monitor and control the plan, which involves measuring the initial results against the intended objectives and coordinating all changes to the plans.

A project plan is the document used to coordinate all the project plans and used as a guide to implement and monitor the project. Plans should be dynamic and the project manager role is to ensure the plans have a level of flexibility to allow changes as the project makes progress or when the project environment changes. A project plan is a tool the project manager uses to lead the project team and assess the status of the project.

In order to create a good project plan the project manager needs to practice the art of integration, since most of the information contained on the project plans come from many sources, usually from subject matter experts and project stakeholders. The role of coordinating all this information gives the project manager the opportunity to build a good understanding of the overall project and how it will be used to guide its implementation.

Development projects are unique, and so are the project plans. A large project involving many people over many years would require a detailed project plan with complete and in depth information spanning many pages; on the other hand, a small project that involves a few people over a couple of months might have a project plan a few pages long. The project manager will tailor the project plan to fit the needs of the project; the plans are intended to guide the project implementation, not to hinder it with too detailed instructions.

The content of a project plan can be used as a guideline for new projects or as a check list to evaluate current project plans. Either way the project manager or the development organization can decide the minimum content of the project plan. It is a good practice if the organizations develop basic guidelines to help the creation of

the project plan, since this document will be used as a communication tool with the donor, beneficiaries, management and other key stakeholders.

Project plan implementation includes all the efforts necessary to achieve the activity outputs, implementing the plan is essentially a guiding proactive role accomplished by a constant referral back to the project plan. This is the place where the project will spend most of its resources and it requires that the project manager manages and monitors the performance of the project activities as described in the project plan.

#### **4.0 CONCLUSION**

Project is not done in isolation the need to have competent, capable and committed project manager who is professionally trained is crucial to the success of it provided proper monitor in consonance with vision and mission is followed religiously.

#### **5.0 SUMMARY**

In this unit we discussed the core role of a project manager and integrators which are two pair of a coin towards but distinct, the melting point to attain project is the technical responsibilities in implementation to achieve the activity planned outputs.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

1. What are the roles of a project manager?
2. Explain the concept of Integration.

#### **7.0 REFERENCES/FURTHER READINGS**

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight children". *Pediatrics*.124(2):717–28. doi:10.1542/peds.2008-2816. PMID 19651588.

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## **UNIT 2      PROJECT                      PLANNING                      AND IMPLEMENTATION SKILLS**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Project Plan Monitoring and Control
  - 3.2 Communicator
  - 3.3 Leader
  - 3.4 Coordinator
  - 3.5 Motivator
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

The main objective of developing a project plan is to guide the project implementation, a good plan should help produce good outputs, which ultimately lead to good outcomes. A good approach to help the coordination between project planning and project implementation is to have the same people who plan the activities be the people who will implement them. The project team needs to experience and build the skills to develop and implement a plan, the team that implements the plan has a better chance at success if its part of the plan development. Although project managers are responsible for developing the overall project management plan, they must solicit inputs from the project team members for each process area.

Project implementation requires a different set of skills; such as leadership, communication, facilitating and negotiating skills. Project managers must provide leadership to interpret the project plans and the implementation guidelines, project managers must also be able to communicate with the project team and stakeholders to develop and implement good project plans. Project managers and their staff must possess the required expertise for successful project implementation. If they don't, it is the projects manager's job to help develop the necessary skills, or find somebody else who can to the job or alert the organizations management of the problem.

During implementation the best practices and good results from the early activities needs to be documented as to benefit future activities and facilitate improvements to the project plan.

## **2.0 OBJECTIVES**

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

- understand the skills of a project manager
- describe project manager as:
  - i. A Communicator
  - ii. A Leader
  - iii. A Coordinator
  - iv. A Motivator

## **3.0 MAIN CONTENT**

### **3.1 Project Plan Monitoring and Control**

Monitoring and controlling the project involves identifying, evaluating and managing changes throughout the project management life cycle, the role of the project manager in this area involves achieving the following objectives:

- Ensure that changes are beneficial and contribute to the project success; this is achieved by influencing the factors that create changes and by making trade-offs among the projects constraints such as scope, schedule, budget and quality.
- Communicate significant changes to management, beneficiaries and donors, especially the ones that will impact the projects constraints.
- Update project plans and record changes.

### **3.2 Communicator**

This is another important role of the project manager, but one that is often overlooked and not properly taken in consideration when assigning a project manager to a new project. Communication is providing relevant, timely information to the right people about the project. Communication is used to inform and educate the project stakeholders about the project objectives, risks, assumptions and constraints.

The communication or informational role is the most critical role for the success of the project. The organization functional managers,

project staff, donors and key stakeholders need to make critical decision about the project, and the information they receive must be relevant, on time and accurate. Project managers in the role of communicators take three functions: to gather information from project staff and other people involved with the project; distribute the information to stakeholders, which includes the donor, beneficiaries, and the organizations functional managers; and the last function is to transmit the information to the external environment, such as the general public to gain support to the project.

Project managers spend most of their time communicating. They hold meetings; develop reports (writing as well as orally) to the, donors, beneficiaries or senior management; they listen to issues; solve problems; provide direction and constantly negotiate for resources. Project managers' success depends greatly on their ability to communicate. The project manager uses two forms of communication:

Formal communications which include progress reports and presentations to management or the beneficiaries 2. Informal communications which includes email messages, telephone calls, and team meetings the effectiveness with which this role is used is important to the success of the project and the project manager.

### **3.3 Leader**

A project manager is above all a leader; the team needs direction for the life of the project and the project manager is responsible for leading the team to achieve the vision that the project has created, a project manager does this by facilitating, coordinating and motivating the team to achieve the project goals; this is a central role of the project manager and her ability to influence, inspire, direct, communicate will determine her effectiveness as a project manager. Leading is a central role; it involves working with and through others to achieve the objectives of the project. It is through the project manager's ability to lead will determine the success of the project.

The focus on this role is to ensure the project team and the project stakeholders have a clear vision of the objectives the project aims to achieve. During the course of the project is not unusual that the team starts shifting its attention from the final objective; here is where the leadership role is needed and the project manager needs to communicate and motivate the team to the ultimate goal. The

leadership role includes the facilitator, coordinator and motivator roles.

### **Facilitator**

In this role the project manager acts as an individual who enables the project team to work more effectively; helps them collaborate and achieve synergy. The project manager is not responsible to do all the tasks of the project, that is the responsibility of the project team, the project manager role is to create the right conditions that enable the project team to carry their duties.

The project manager also contributes by providing the framework to facilitate the interactions among the different groups so that they are able to function effectively. The goal of this role is to support the project team and the beneficiaries so that they can achieve exceptional performance. The project manager encourages full participation from the project team, promotes mutual understanding with the beneficiaries and cultivates shared responsibility among all project stakeholders.

The facilitator role is mostly used when dealing with beneficiaries, since the project manager doesn't have any form of authority over this group he must provide an environment of trust where beneficiaries feel comfortable about contributing ideas and provide input to the project and discover the solutions that can help achieve the projects objectives.

### **3.4 Coordinator**

Coordination means integrating the goals and activities of the people and groups involved with the project. The functional units in the organizations, such as finance, human resources and procurement; and the beneficiaries and the partners involved with the project, need their activities be coordinated in a way that benefit the project. This role demanded of the project managers is needed to ensure all these groups are working towards the same goal. The project managers has to inform each group about what is expected from the by the project, without coordination these groups will lose sight of their role with the project and may pursue their own interest at the cost of the project.

The need for coordination depends on the extent to which they need to be integrated with the activities of other groups; it depends on the degree of interdependence and the nature of communication requirements. A high degree of coordination is needed when factors in the project environment are changing and there exist a high level

of interdependence among the activities performed by the different groups. This is a case when one group requires an output coming from another group in order to complete an activity.

Communication is the best tool to achieve an effective coordination, the project manager's role is to ensure that information is received by all groups at the right time; the greater the level of complexity and uncertainty about the project objectives the greater the need for information. The project manager needs to evaluate the best approach to coordinate formal or informal communications. The approach has to match the project's capacity for coordination with its need for coordination; it is important to know if the need for coordination is larger than the ability to coordinate then the project manager increases the resources to help him coordinate.

### **3.5 Motivator**

Development projects are highly complex and demanding on the project staff, this is the reason why the project manager has to act as a motivator to the team in times of difficulty. Working with people is not always easy and the factors that provide them with motivation are different from each other. The project manager's role as a motivator is to identify the factors that serve as an incentive for a project team to take the necessary action to complete a task within the project constraints. The nature of development projects; difficult locations, high security risks, extensive travel, limited accommodations and other factors contribute to the low motivation of the team.

The project team is an integral part of the project, lack of motivation can lead to high turnover and low morale which results in poor performance. Even if the project is able to develop the best plans and has all the resources needed if people are not motivated the project will fail. Project Managers also foster teamwork among all project participants, they act as catalyst of change to get the beneficiaries, donor, project team and management of the organization to work and meet the project goals.

### **4.0 CONCLUSION**

The need for a project manager to acquire certain expertise which reflects on expediency of project outcome as he/she has to lead, motivate, coordinate and communicate in a manner that would not jeopardized work at hand.

## 5.0 SUMMARY

In this unit we discussed the skill that a project manager should possess which will promote efficiency and effectiveness in the process of articulating a project plan and making everyone on the project a team to realize the goals of the organization.

## 6.0 TUTOR-MARKED ASSIGNMENT

What are the four skills required by a project manager to make a successful team?

Discuss the below:

“Communication is the best tool to achieve an effective coordination”

## 7.0 REFERENCES/FURTHER READINGS

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight children". *Pediatrics*.124(2):717–28. doi:10.1542/peds.2008-2816. PMID 19651588.

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Kepa (1997) Summary of Differences between Monitoring and Evaluation (online).

## **UNIT 3 RESPONSIBILITIES OF THE PROJECT MANAGER**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Planning
  - 3.2 Organizing
  - 3.3 Directing
  - 3.4 Controlling
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Responsibility is an agreement between two or more people for the intention of achieving a desired result. A organization appoints a person as the project manager with responsibility to undertake the project; but even as the organization has transferred the responsibility for the project, the organization still retains full accountability for the final result. The project manager must be sure that the assigned responsibility is clearly stated and the expected results are mutually understood and accepted by all stakeholders.

Accountability comes as a result of the assigned responsibility. When an organization assigns responsibility to a person to manage a project, the organization must hold that person accountable for achieving the desired result or provide consequences for poor performance, such as a negative employee performance rating, reassignment, probation, or termination. The accountability must be consistent with the responsibility assigned.

Projects vary in duration, scope, and complexity. On a large or complex project, the Project Manager may elect to appoint one or more Assistant Project Managers. The Project Manager may delegate single or multiple responsibilities, including monitoring responsibility to an Assistant Project Manager. The Project Manager may direct the Assistant Project Manager to control different processes of the project; this may include controlling budgets, and monitoring progress.

When a project manager is given the authority over the project, it includes the appropriate access to resources to complete the job,

such as access to personnel or signature authority for the expenditure of funds. Authority must be commensurate with the responsibility assigned and appropriate to the accountability.

Successful organizations have written policies and procedures that define how responsibility, accountability, and authority work in the project management environment. It is important to define in writing the specific responsibilities and authority the project manager will have in terms of personnel, equipment, materials, and funds. The organization must determine and explicitly define the level of authority the project manager has to hire and terminate team members, including the level of purchase authority over equipment and materials necessary to the project or the level of signature authority over other project expenditures.

The project manager has specific accountability for three areas of the project, accountability to the donor to provide timely and accurate information; accountability to the beneficiaries for delivering the project outcomes; and accountability to the organization for managing the project and follow policies and uphold its values.

In general terms the project manager responsibilities in the project are: planning, organizing, directing and controlling the project. These they are part of the project manager's main role as project integrator.

## **2.0 OBJECTIVES**

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

- identify the responsibilities of the project manager
- recognize the responsibilities
- define project manager as:
  - i. A Planner
  - ii. A Organizer
  - iii. A Director
  - iv. A Controller.

## **3.0 MAIN CONTENT**

### **3.1 Planning**

Planning involves defining what the project will accomplish, when it will be completed, how it will be implemented and monitored and who will do it. The project manager is responsible for creating the project plans and defining the goals, objectives, activities and

resources needed. The project plans are the tactical blueprints under which the entire project will be implemented and will serve as a map to guide the project team, beneficiaries, donors and management. The project manager is also responsible for updating the plans as new changes or modifications are approved, she is responsible for communicating all stakeholders on the changes and ensures that the changes are being incorporated in the activities and tasks of the project team.

### **3.2 Organizing**

This responsibility is to establish a structure that will maximize the efficiency (doing the things right) and effectiveness (doing the right things) of the project. The project manager, once the plans have been approved and distributed, has the responsibility to build and staff the project organization that will be capable to carry out the plans. Here the focus is on coordination, control of activities and the flow of information within the project. In this responsibility the project manager distributes and delegates authority to project staff. The project manager must have the ability to determine the type of project organization that will fit the needs, constraints and environment of the project. An important element of organization is to staff the project with qualified staff who can take the responsibility for specific elements of the project.

### **3.3 Directing**

Once the plans are made, the project organization has been determined and the project staffed, the responsibilities of the project manager is to direct, lead and motivate the members of the project to perform in a unified, consistent and manner. The project team may have people with different skill sets and project experience; development projects bring together different expertise from social sciences to engineering, the team members may have not worked together in the past and they may come in and out of the project at different times. By directing, the project manager assumes the responsibility that the project team will follow the vision of the project and all instructions, mandates and work orders.

### **3.4 Controlling**

Controlling is a responsibility to ensure the actions of the project team contribute toward the project goals; the project manager must establish standards for performance, measure performance and compare it with the established standards; detect variations and

make the necessary corrections. This responsibility ensures that the project is on track.

#### **4.0 CONCLUSION**

Responsibilities of a project manager are enormous in nature however these four are cogent; planning, organizing, controlling and directing provided they are well harness tendency for high actualization is guaranteed.

#### **5.0 SUMMARY**

In this unit we discussed some of the responsibilities that a project manager should possessed which will promote competence and productivity in process of project plan and make goals of the organization a world of possibilities.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

Discuss the key responsibilities of a project manager.

#### **7.0 REFERENCES/FURTHER READINGS**

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight children".*Pediatrics*.124(2):717–28. doi:10.1542/peds.2008-2816. PMID 19651588.

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## **UNIT 4 MANAGEMENT SKILLS**

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  - 3.1 Process Skills
  - 3.2 Problem Solving Skills
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  - 3.4 Conceptual Skills
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  - 3.9 Influence and Power of the Project Manager
  - 3.10 Placing Roles, Responsibilities and Skills Together
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
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### **1.0 INTRODUCTION**

The evolution of development projects has changed the skills required of project managers. Not long ago the emphasis was placed on technical skills and project managers were hired by the experience and proficiency in the technical area the project was involved in. In the last years the nature of development projects has changed considerably, projects are not just one-dimensional approaches focused on a single solution. Today's development project use multi-dimensional methods that include different approaches; these may include rights based, gender, and partnership.

Project teams involve more and more stakeholders, and behavioral skills are becoming equally important as technical skills are. In this new time, to be an effective project manager, may require having an understanding of general management rather than being a technical expert. Projects are becoming more complex that it is simply no longer possible for the project manager to remain a technical expert in all aspects of the project. Project managers need to spend more of their time planning, organizing, directing and controlling the project rather than providing only technical direction.

## 2.0 OBJECTIVES

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

- understand management skill
- explain each of the management skill
- elucidate on influence and power of the project manager
- highlight the Influence and Power of the Project Manager.

## 3.0 MAIN CONTENT

### 3.1 Process Skills

Project management is both a science and an art; it's a science because it requires the use of quantitative analysis such as charts, graphs, financial data; and an art because it deals with qualitative analysis such as negotiating, conflict resolution, political, interpersonal and organizational factors. In order to perform the functions of management and to assume multiple roles, project managers must be skilled in both the science and the art of project management. There are five managerial skills that are essential to successful management: process, problem solving, negotiating and conceptual skills:

The project manager must have skills to use management techniques, procedures and tools. She must know how to interpret a budget report, know how to read a statistical analysis of a project baseline data, and understand the correct application of the different management methodologies. In addition to the above the project manager is expected to have skills in the effective use of information and communication technology to help her be more effective in her work. Process skills are related to working with processes and tools. They refer to using specialized knowledge and experience related to project management and the specific methodologies of the project for implementing project activities. These skills are necessary to communicate effectively with the project team, to assess risks, and to make trade-offs between budget, schedule, scope and quality issues.

Since project managers do not do the actual work of the project, they do not need the same technical skill level as the people performing the work. This is not to say that the project manager doesn't need a level of technical expertise, the more expertise the project manager has in the process area of the project, the greater his effectiveness in managing the project. Process expertise is essential

to identify potential problems and increases the ability of the project manager to integrate all aspects of the project.

The project manager must maintain a general perspective and not let her technical competence lead to micro-managing or do the project work. She must concentrate on managing the project, letting the project team members perform the technical work and limit her technical involvement to evaluating the work of the team.

### **3.2 Problem Solving Skills**

All projects are prone to encounter problems, problems that were not identified in the risk or scope definition of the project and that needs to be managed accordingly. Problem solving requires a good definition of the problem that is detected early enough to allow time to respond. In many cases the original problem is a symptom or a larger problem.

Problem solving skills make use of different techniques, and by using these techniques the project manager can start to tackle problems which might otherwise seem huge, overwhelming and excessively complex. Techniques such as breaking problems down into manageable parts, identifying root causes of problems, analyzing strengths, weaknesses, opportunities & threats, must be mastered in order to solve problems.

Additionally the project manager needs synthesis and analysis thinking skills. A project manager must be able to synthesize information—collecting and arrange disparate information into a meaningful whole. A project manager must be able to see patterns in information and derive meaning from distinct pieces of data. Analysis is the skill of breaking a whole into component parts, much like decomposing work into a work breakdown structure (WBS.)

### **3.3 Negotiation Skills**

Project managers spend a large portion of their time negotiating for resources, equipment or other support, and if they do not have strong negotiating skills, their chances of being successful are greatly reduced. A large part of negotiation takes place within the organization to get the resources the project needs, resources that are being requested by other project managers. Negotiation is the process of obtaining mutually acceptable agreements with individuals or groups. Depending on the projects structure and the level of authorization the project managers has to negotiate on behalf of the organization. Negotiation usually include making trade-offs when stakeholders request changes or modifications to the

project and its resources; negotiation also includes dealing with vendors or consultants who are bidding for a specific good or service, this area may require the assistance of specialized staff such as representatives from legal or the procurement department. Negotiation skills also come handy when dealing with project beneficiaries and building agreements that will benefit both the project and the beneficiaries. Beneficiaries have in many instances other priorities and participating in the project activities may not be a main priority. The project manager must be able to find the best approach to develop common understanding and align the interest of the beneficiaries with those of the project.

### **3.4 Conceptual Skills**

Conceptual skills is the ability to coordinate and integrate all the projects efforts, it requires for the project manager to see the project as a whole and not just the sum of its parts, ability to understand how all the parts relate and depend on one another. This skill is useful for its ability to anticipate how a change on one part of the project will affect the entire project. The bigger and more complex is the project, the larger is the need for this type of skill. This skill helps the project manager keep a clear vision of the ultimate goal of the project and understand its relationships and dependencies with the project's environment. Conceptual skills refer to the ability to see the "big picture." Project managers with good conceptual skills are well aware of how various elements of the project environment or ecosystem interrelate and influence one another. They understand relationships between projects, the development organization, the donor organization, the beneficiaries and its environment, and how changes in one part of the environment affect the project. Conceptual skills are necessary to appropriately deal with project politics and to acquire adequate support from top management.

### **3.5 Interpersonal Skills**

Although technical expertise is important, project managers do not need to be expert in the project's technical area. In fact, it is better that the project manager be a generalist rather than an expert. The reason is that experts tend to be very narrow in their views. Experts leading a project are less likely to consider any other view than their own. The tendency is for experts to believe their solution is the right one, and therefore the only choice. A generalist, on the other hand, is far more open to the views and suggestions of the team members. On balance, the results of projects led by a generalist tend to yield much better deliverables than a comparable project led by an expert in one technical area. Interpersonal skills require understanding

people, their attitudes, and human dynamics. They represent the ability of a project manager to work effectively as a project team leader and to build cooperative effort with the project members and all other groups with which the project team interacts. They are most critical for effective performance in a project environment. Major interpersonal skills include: communication, team building, coaching, motivating, training, directing, persuading/influencing, negotiating, and supporting those involved in the project.

The most proficient project management skills in the world will not compensate for a procedural blunder caused by not understanding the company culture, policies, personalities, or politics. The project manager negotiates with many people and needs to know their personalities, needs, and desires. The more he knows about the organization, the better equipped that manager is to maneuver around pitfalls and get what is needed for the project. Every organization has a unique culture and individual divisions within an organization often have their own personalities. Understanding these cultures and personalities can help a project manager be more successful.

The project manager must be sensible to the cultural differences when dealing with diverse people and their opinions, values, and attitudes. This is particularly true for the international projects that consist of the people of diverse cultures. Good interpersonal abilities build trust and confidence between members of the project team and help create good relations and a good working environment. The important interpersonal abilities required to handle projects are leadership; communication, behavior and negotiation:

### **3.6 Leadership Skills**

Leadership skills are essential for project managers because project managers must influence the behavior of others. Project managers require leadership skills for the simple reason that they accomplish their work through people. Leadership is the predominant contributor to the success of the project manager. In small projects, good leadership can succeed even in a climate of otherwise unskilled management. This skill gives the project manager the ability to articulate a clear vision and provide direction.

### **3.7 Communication Skills**

The second most important skill, and the one in which they will spend most of their time during the life of the project. Good communications skills include verbal and non-verbal

communications that enables a project manager to convey project information in a way that it is received and understood by all project stakeholders.

This skill is important in any endeavor but is absolutely crucial in project management. It has been estimated that project managers spend 80 percent of their time just communicating: with the project team, the customer, functional managers, and upper management.

Communication is only successful when both the sender and the receiver understand the same information as a result of the communication. By successfully getting the message across, you convey your thoughts and ideas effectively. When not successful, the thoughts and ideas that are sent do not necessarily reflect what is intended, causing a communications breakdown and creating roadblocks that stand in the way of the project goals.

### **3.8 Behavioral Skills**

Behavioral skills are the skills that give the project manager the ability to work with people, and the ability to motivate people involved in the project. Behavioral skills are also known as people skills and these skills are needed in development projects due to the large and varied number of people the project interfaces with. Behavioral or people skills, it's the ability to build cooperation between the project team, other project stakeholders, and the project organization. These skills require an understanding of the perceptions and attitudes, which help improve the morale of individuals and groups.

### **3.9 Influence and Power of the Project Manager**

Project managers are vested authority on the project by the organization, the authority provides a level of influence on the project and its members and the project manager can use to establish its power.

Power is the ability to influence the behavior of the project team to do the things they will not normally do. A project manager can use five different types of power:

- Coercive power is a negative approach to power, it uses some form of punishment or penalty treat to get people to do things. A project manager can threaten to fire a team member if they don't follow a specific assignment or change a behavior. This approach is usually used as a last resort when all other forms

of influence have failed and should be done in coordination with the organizations management and never used as the only influence factor due to its negative impact on the team's motivation.

- Reward power involves the use of incentives such as money, status, promotions, official recognition or special work assignments; these are used as a reward to get some desired behavior or assignment. The project manager can use these type of incentive based on the resources available to the project and polices of the organization.
- Expert power is the use of personal expertise to influence the team to follow directions. If the team recognizes the project manager as a relevant expertise and has demonstrated this knowledge, then they will be more likely follow the project manager's directions or suggestions on how work must be done.
- Legitimate power is based on authority, and uses the power vested on the project manager by the organization to make decisions without involving the project team. Excessive use of this type of power can lead to project failure, the role and position plus the support given by management to the project manager are part of this part of type of power.
- Referent power is based on the personal charisma of the project manager, it is based on the leadership qualities of the project manager and how she has built a good level of trust with the team. This is a type of power that must be earned before it is used and it's the best type of power to influence the team.

### **3.10 Placing Roles, Responsibilities and Skills Together**

Project managers are expected to accomplish project objectives by using their knowledge, skills, and practical experience. During the project management process, they have to use a combination of their roles (integrator, communicator, and leader) and skills (management and interpersonal).

All these roles and skills are equally important in managing a project successfully. Successful project managers are expected to and must play anyone, or a combination of these roles, depending upon the situation and the phase of the project life cycle. Project managers should place relatively more emphasis on their role as leaders during the initiation phase, as integrators during the planning phase, as managers during the implementation phase, and as administrators during the closing phase. However, it should be recognized that although these roles have some of their own distinct characteristics, there are also some characteristics that

are common and overlapping. Effective project managers should be able to tailor their roles to the size, complexity, and environment of the project; cultural diversity of the people and overall organizational culture; and the circumstances surrounding the project management.

Drawing from our deep understanding of the challenges and the needs for realistic solutions that can improve the way in which projects are managed and services are delivered, offers the only adapted Project Management Methodology for development organizations. These services include:

- Consulting to help organizations assessing the need and the impact of implementing a Project Management methodology that will increase the impact of their interventions.
- On Site Training on Project Management Methods to increase/develop the skills of project managers.
- Customized coaching and mentoring sessions for organizations that want to develop their own competencies and need a flexible and personalized learning environment.

#### **4.0 CONCLUSION**

Management skills and applicability entails knowledge and practices which are vital tools for excellence result, the skill discussed serve are medium for managers to achieve optimum success in the project embarked on.

#### **5.0 SUMMARY**

In this unit we discussed management skills that are essential for a project manager to carry out the task also the influence and Power of the Project Manager vis-à-vis the art placing roles, responsibilities and skills together for successful plan are examined.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

Examine the five management skill and its importance to a project manager.

#### **7.0 REFERENCES/FURTHER READINGS**

Aarnoudse-Moens, C. S; Weisglas-Kuperus, N; van Goudoever, J. B; Oosterlaan, J (Aug 2009). "Meta-analysis of neurobehavioral outcomes in very preterm and/or very low birth weight

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Kepa (1997) Summary of Differences between Monitoring and Evaluation (online).

## **UNIT 5      MONITORING AND EVALUATION**

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  - 3.5 Monitoring & Evaluation
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  - 3.7 Importance of Monitoring and Evaluation
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- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **2.0      OBJECTIVES**

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

### **3.0      MAIN CONTENT**

#### **3.1      Definition of Monitoring and Evaluation**

Monitoring and evaluation have been defined as:

#### **3.2      Monitoring**

“A continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds”.

##### **3.2.1      Monitoring**

Monitoring is a continuous assessment that aims at providing all stakeholders with early detailed information on the progress or delay of the ongoing assessed activities. It is an oversight of the activity's implementation stage. Its purpose is to determine if the outputs, deliveries and schedules planned have been reached so that action can be taken to correct the deficiencies as quickly as possible.

The emphasis in monitoring is on checking progress towards the achievement of an objective. A good monitoring system will thus give warning, early on in the implementation of a course of action that the end goal will be reached as planned. Monitoring also involves a process of comparison because actual performance is compared with what was planned or expected.

A simple example is the monitoring of the completion of the planned activities of a project against the target dates that have been set for each activity. Another example for routine activities like the processing of applications for social grants, is to monitor the number of applications received against the number completed per month. If 100 are received but only 90 completed and if this trend is repeated for a number of months, it means that a backlog of unprocessed applications is building up.

### **3.3 Evaluation**

“The systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors.

Evaluation also refers to the process of determining the worth or significance of an activity, policy or programme. An assessment, as systematic and objective as possible, of a planned, on-going, or completed development intervention.

#### **Note**

Evaluation in some instances involves the definition of appropriate standards, the examination of performance against those standards, an assessment of actual and expected results and the identification of relevant lessons”.

Evaluation is the determination of merit or shortcoming. To make the judgments one needs a standard of what is regarded as meritorious to compare with. Evaluation is thus a process of comparison to a standard. For instance, the statement “a high quality service has been delivered that met the needs of clients and improved their circumstances” is an evaluation.

The evaluation will be better if “quality”, “needs” and “improvement in circumstances” have been quantified.

An important goal of evaluation is to provide recommendations and lessons to the project managers and implementation teams that have worked on the projects and for the ones that will implement and work on similar projects.

Evaluations are also indirectly a means to report to the donor about the activities implemented. It is a means to verify that the donated funds are being well managed and transparently spent. The evaluators are supposed to check and analyse the budget lines and to report the findings in their work.

### **3.4 What is Monitoring and Evaluation (M&E)?**

This section provides a brief introduction to what M&E is, together with a selection of recommended reading and further links to help you get started.

The M&E is, as its name indicates, separated into two distinguished categories: Evaluation and Monitoring. An evaluation is a systematic and objective examination concerning the relevance, effectiveness, efficiency and impact of activities in the light of specified objectives. The idea in evaluating projects is to isolate errors not to repeat them and to underline and promote the successful mechanisms for current and future projects.

(M&E) is a process that helps improve performance and achieve results. Its goal is to improve current and future management of outputs, outcomes and impact. It is mainly used to assess the performance of projects, institutions and programmed set up by governments, international organisations and NGOs. It establishes links between the past, present and future actions.

Monitoring and evaluation processes can be managed by the donors financing the assessed activities, by an independent branch of the implementing organization, by the project managers or implementing team themselves and/or by a private company. The credibility and objectivity of monitoring and evaluation reports depend very much on the independence of the evaluate or evaluating team in charge. Their expertise and independence is of major importance for the process to be successful.

### **3.5 Monitoring & Evaluation**

M&E is an embedded concept and constitutive part of every project or programme design (“must be”). M&E is not an imposed control instrument by the donor or an optional accessory (“nice to have”) of any

project or programme. M&E is ideally understood as dialogue on development and its progress between all stakeholders.

Monitoring is the systematic and routine collection of information from projects and programmes for four main purposes:

- To learn from experiences to improve practices and activities in the future;
- To have internal and external accountability of the resources used and the results obtained;
- To take informed decisions on the future of the initiative;
- To promote empowerment of beneficiaries of the initiative.

Monitoring is a periodically recurring task already beginning in the planning stage of a project or programme. Monitoring allows results, processes and experiences to be documented and used as a basis to steer decision-making and learning processes. Monitoring is checking progress against plans. The data acquired through monitoring is used for evaluation.

Evaluation is assessing, as systematically and objectively as possible, a completed project or programme (or a phase of an ongoing project or programme that has been completed). Evaluations appraise data and information that inform strategic decisions, thus improving the project or programme in the future.

Evaluations should help to draw conclusions about five main aspects of the intervention:

- relevance
- effectiveness
- efficiency
- impact
- sustainability

Information gathered in relation to these aspects during the monitoring process provides the basis for the evaluative analysis.

In general, monitoring is integral to evaluation. During an evaluation, information from previous monitoring processes is used to understand the ways in which the project or programme developed and stimulated change. Monitoring focuses on the measurement of the following aspects of an intervention:

- On quantity and quality of the implemented activities (outputs: What do we do? How do we manage our activities?)

- On processes inherent to a project or programme (outcomes: What were the effects /changes that occurred as a result of your intervention?)
- On processes external to an intervention (impact: Which broader, long-term effects were triggered by the implemented activities in combination with other environmental factors?).

The evaluation process is an analysis or interpretation of the collected data which delves deeper into the relationships between the results of the project/programme, the effects produced by the project/programme and the overall impact of the project/programme.

### **3.6 Differences between Monitoring and Evaluation**

The common ground for monitoring and evaluation is that they are both management tools. For monitoring, data and information collection for tracking progress according to the terms of reference is gathered periodically which is not the case in evaluations for which the data and information collection is happening during or in view of the evaluation. The monitoring is a short term assessment and does not take into consideration the outcomes and impact unlike the evaluation process which also assesses the outcomes and sometime longer term impact. This impact assessment occurs sometimes after the end of a project, even though it is rare because of its cost and of the difficulty to determine whether the project is responsible of the observed results.

### **3.7 Importance of Monitoring and Evaluation**

The Paris Declaration on Aid Effectiveness in February 2005 and the follow-up meeting in Accra underlined the importance of the evaluation process and of the ownership of its conduct by the projects hosting countries. Evaluations are often a retrospective, applies the lessons and recommendations to decisions about current and future programmes.

- Evaluations can also be used to promote new projects, get support from governments, raise funds from public or private institutions and inform the general public on the different activities.
- Governments are increasingly being called upon to demonstrate results. It is expected of them to demonstrate that they are making a real difference to the lives of their people and that value for money has been delivered. Citizens are no longer solely interested in the administration of laws but also in the services that are rendered.
- Critically, they are more than ever interested in outcomes, like the performance of the economy in creating jobs.

- Similarly, to ensure that tangible results are achieved, the way that it monitors, evaluates and reports on its policies, projects and programmes.
- Monitoring and Evaluation, to improve the performance of our system of governance and the quality of our outputs.
- Providing an early warning system and a mechanism to respond speedily to problems, as they arise.
- Necessitate an improvement of our statistical and information base and enhancing the capacity of the Policy Coordination and Advisory Services unit.”

### **3.8 Purposes (and uses) of Monitoring and Evaluation**

Monitoring and evaluation is used for a variety of purposes. The purpose for which it is used determines the particular orientation of each evaluation. M&E may be used for the following main purposes:

#### **i) Management decision-making**

M&E systems augment managerial processes and provide evidence for decision-making. The question that should be asked is whether the quality of the M&E information provided is appropriate and how well it feeds into existing managerial processes. M&E can never replace good management practices; rather it augments and complements management.

Some examples of M&E used in this context are decisions on resource allocation, choices between competing strategies to achieve the same objective, policy decisions, and decisions on programme design and implementation. The accuracy of information and the manner in which it is presented become critical for supporting management in their decision-making processes.

#### **ii) Organisational learning**

This is the most challenging outcome for M&E, as it presupposes that M&E results and findings help to create learning organisations. However, translating findings into “learnings” challenges even the most sophisticated of organisations.

M&E is also a research tool to explore what programme design, or solution to societal problems, will work best and why, and what programme design and operational processes will create the best value for money. M&E should provide the analysis and evidence to do the trade-offs between various alternative strategies. The information gathered should be translated into analytical, action-oriented reports that

facilitate effective decision-making. The focus here is on causes of problems rather than the manifestation of problems. Learning has been described as “a continuous dynamic process of investigation where the key elements are experience, knowledge, access and relevance. It requires a culture of inquiry and investigation, rather than one of response and reporting”

M&E produces new knowledge. “Knowledge management means capturing findings, institutionalizing learning, and organizing the wealth of information produced continually by the M&E system”.

### **iii) Accountability**

Public officials have a constitutional obligation to account to Parliament. They should be broadly accountable for how they spend public money, how they have achieved the purposes for which the money has been voted and that they have gone about their duties with a high degree of integrity.

M&E provides the information, in a structured and formalised manner, which allows scrutiny of public service activities at all levels.

The purpose of M&E may account for the perception that M&E is “policing”. Despite the concerns that many have that one should not pursue M&E only for the purpose of accountability, as it may create suspicion and a culture of fear, when dealing with public funds accountability is critically important. Accountability is governed by the Constitution and legislation such as the Public Finance Management Act, is supported by institutions such as the Auditor-General and the Public Service Commission, and failure to adhere to meeting accountability requirements is often met by sanction.

Apart from the above main purposes of M&E, its findings are also used, across a broad audience, for the following:

#### **i) Soliciting support for programmes**

If the success of a programme can be demonstrated by means of evaluation findings it is easier to garner support for the programme, for example continued or increased budgetary allocations for the programme or political support when important policy decisions affecting the programme must be made.

## ii) **Supporting advocacy**

M&E results from projects and programmes generally help to make an argument for the continuation, adjustment or termination of a programme. M&E in this context provides the means for supporting or refuting arguments, clarifying issues, promoting understanding of the aims and underlying logic of policies, documenting programme implementation and thereby creating an institutional memory, and involving more people in the design and execution of the programme. Through this it plays a vital advocacy role.

## iii) **Promoting transparency**

One of the most persuasive uses for M&E, if its findings are made available to a broader audience, is that it promotes transparency, and through this facilitates decision-making and accountability. M&E requires a willingness to be subjected to scrutiny, as findings may be published and made available to the public.

## **3.8 Performance measurement**

Performance reports provide information to measure the status of the project against the original plans or baseline. The purpose of the report is to identify any discrepancies or issues, the project team is then responsible to determine the best corrective actions needed. Changes are common in projects but they must be managed and properly documented, as they are the basis for project audits and help inform the project evaluators as to the reasons for the changes. Part of this role is to ensure that lessons learned are captured and shared with the organization to provide guidance to current or future projects.

The credibility of findings and assessments depends to a large extent on the manner in which monitoring and evaluation is conducted. To assess performance, it is necessary to select, before the implementation of the project, indicators which will permit to rate the targeted outputs and outcomes. According to the United Nations Development Programme (UNDP), an outcome indicator has two components: the baseline which is the situation before the programme or project begins, and the target which is the expected situation at the end of the project. An output indicator that does not have any baseline as the purpose of the output is to introduce something that does not exist yet.

## 4.0 CONCLUSION

Monitoring and evaluation are partners with extensive support of success of a project both are indicators to assess the state and stage of success and failure while one occur during the project process the other is done mostly at post project state for measurement of performance vis-à-vis level of goal target success.

## 5.0 SUMMARY

In this unit, we treated M&E in relation to purpose, differences, and others which will open the mind of learners to the key concept involved.

## 6.0 TUTOR-MARKED ASSIGNMENT

Elucidate on the purpose of monitoring and evaluation.

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## **MODULE 3      PROJECT PLANNING MANAGEMENT, MONITORING AND EVALUATION**

Unit 1	The Cost of Capital Theory
Unit 2	Time Value of Money
Unit 3	Capital Budgeting
Unit 4	Portfolio Management
Unit 5	Discounted Cash Flow Criteria

### **UNIT 1      THE COST OF CAPITAL THEORY**

#### **CONTENTS**

1.0	Introduction
2.0	Objectives
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3.2	Historical Cost and Future Cost
3.3	Specific Cost and Combined Cost
3.3.1	The Cost of Debt
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3.3.3	Cost of Preference Capital
3.3.4	The Cost of Equity Capital
3.3.5	Weighted Average Cost of Capital (WACC)
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
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#### **1.0      INTRODUCTION**

In the last unit (Unit 3), we discussed Capital budgeting. We discussed the Investment decisions of the firm. We discussed the capital budgeting process where we discussed the various stages of a project. We discussed Investment Criteria and classified criteria into broad categories namely – the traditional criteria and the discounted cash flow criteria. All these enabled us to understand capital budgeting. In this unit, we shall discuss the cost of capital theory.

#### **2.0      OBJECTIVES**

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

- explain what is meant by the cost of capital
- discuss the cost of capital.

### **3.0 MAIN CONTENT**

#### **3.1 The Cost of Capital Theory**

In financial decision making, the cost of capital appears to be the most important consideration. The principal reason for knowing what the cost of capital is and how to measure it is that it is a very crucial aid in the evaluation of investment proposals. When faced with an investment decision making, the project analyst is faced with two options namely:

Accept the project    Reject the project

We shall start our discussion by stating that the cost of capital is the discount rate that is used in evaluating the desirability of investment projects. In financial evaluation, a project will be accepted if it has a rate of return greater than the cost of capital. And if the rate of return is less than the cost of capital, the project will be rejected.

In a sense, the cost of capital is the minimum rate of return required on an investment project. It is a cut-off rate of return. In a firm the cost of capital is very useful to management. It helps to decide how to finance the firm's investments. Cost of capital also affects the dividend policy and working capital sourcing policy.

We have seen that every investment project has a required rate of return which is at the back of the mind of the investor. That is the rate that the investor wants or expects to earn on the investment. However as we also noted, there is what we know as the cost of capital. It makes sense for us to expect that there is a relationship between the expected rate of return and the cost of capital. Our definition of the cost of capital is in general terms. We shall now proceed to examine the various concepts of the cost of capital.

#### **3.2 Historical Cost and Future Cost**

In financial decision making, the historical costs are not important. Rather what is important is the future cost. When an investment is to be undertaken, the analyst tries to compare the project's expected cost of funds to finance the project and also the expected rate of return on the investment project. The expected costs are the future costs. Also in designing the capital structure of the firm, the aim is to minimize the future cost of capital and obviously not the historical costs. The only importance of the historical cost in financial decision making is that it helps us to predict

or project for future costs. Historical costs enable the analyst to measure the performance of the firm.

### 3.3 Specific Cost and Combined Cost

The first type of cost that we discussed was historical cost and future cost. We shall now discuss the concept of specific cost and combined cost. The cost of each component of capital be it equity, debt or preference shares is known as the component or specific cost of capital. It therefore means that equity capital has its own cost. Also debt capital has its own cost. For example a firm may be faced with a choice of equity capital at a cost of 10% and debt capital at a cost of 16%.

The decision of the firm to use debt in its capital structure adversely affects to a large extent its potential to raise debt at a future rate. Also debt increases the risk of the firm. Also the decision of the firm to use equity in its capital structure enlarges its potential to use debt in the capital structure.

However, the composite or combined cost of capital is an all-inclusive cost of capital from all identified sources in the capital structure. This combined cost is known as the weighted cost of capital.

#### 3.3.1 The Cost of Debt

The cost of debt is relatively easy to calculate. Generally the cost of debt is the rate of return expected by the provider of the debt fund – (the lender). The cost of debt is usually expressed as an interest rate. For example a firm may issue a five year debenture with 10% rate of interest.

Before- tax cost of debt,  $K_d = \frac{\text{Interest}}{\text{Principal}}$

#### Worked Example

A bank lends N200, 000 to Mr. Ojo and at the end of the day earns interest of N18, 000. What is the before- tax cost of debt?

#### Solution

Before- tax cost of debt,  $K_d = \frac{N18, 000}{N200, 000} = .09$  or 9%.

If the firm resorts to the use of debt, then it has to ensure that the interest rate on debt (cost of debt) should at least be equal to the rate of return earned by the investment. If the rate of return earned is greater than the

cost of debt, then the value of the firm will increase. But if the rate of return earned is lower than the cost of debt, then the value of the firm will decrease.

We should also realize that the interest paid on debt is tax deductible. As a result, we have what is known as the effective cost of debt. This is also known as the after – tax cost of debt.

$$\text{After- tax cost of debt} = K_d (1 - t)$$

Where  $t$  = the tax rate.

For example if the before- tax cost of debt is 10% and the tax rate is 50%, then after- tax cost of debt =  $10\% (1 - 0.5) = 5\%$ .

### 3.3.2 The Cost of Perpetual Debt

We have just discussed the cost of debt. We are now going to discuss another class of debts which are called perpetual bonds. A firm may issue perpetual bonds. It may also have a strategic policy of trying to maintain a constant amount of debt in its capital structure. If the firm repays any debt, it replaces it with new debt. In this case, debt remains a constant feature of its capital structure arrangement. In this situation, the after- tax cost of debt adjusted for tax purposes will be thus:

$$\text{After- tax cost of debt} = R (1 - t) \quad P$$

#### Worked Example

A firm issues a 9.5% perpetual bond for N95. The tax rate is 50%. What is the cost of the issue?

#### Solution

$$\text{After tax – cost of perpetual bond} = N9.5 (1 - 0.5)$$

$$N9.5 = 0.05 \text{ or } 5\%$$

### 3.3.3 Cost of Preference Capital

We have just discussed the cost of debt which did not pose any conceptual difficulty. We shall now be discussing the cost of preference capital. The cost of preference capital is not a straight forward issue. As you are aware, debt is legally binding on a firm. But in the case of preference capital, payment of dividend is not legally binding and so it poses difficulty of estimation. Payment of preference dividend is not a charge on the earnings of the firm. It is a distribution of profits

to a class of owners who hold preference shares. However, preference capital has a cost.

The cost of preference capital is a function of the dividends expected by the investors. The holders of preference shares expect to be paid dividends but that is when the firm makes profit. By their nature preference shareholders normally will receive dividends before ordinary shareholders. If a firm is well run, dividends on preference capital would be paid regularly.

We now see preference shares as perpetual Securities especially where they are not redeemable. Thus we can write that the cost of preference shares is given by the equation:

$$K_p = \frac{D_p}{P}$$

Where  $K_p$  = Cost of preference share  $D_p$  = the fixed dividend  $P$  = Price per preference share.

### Worked Example

A firm issues a 10% preference share capital which has no maturity date. The face value per preference share is N1000 but the issue price is N950. What is the cost of the issue?

### Solution

The cost of preference capital is given by:

$$K_p = \frac{D_p}{P}$$

$$K_p = \frac{N100}{N950} = .1053 \text{ or } 10.53 \text{ percent.}$$

It has to be noted that the cost of preference capital is not adjusted for taxes. This is because the dividends on preference capital are usually paid after taxes have been paid.

### 3.3.4 The Cost of Equity Capital

There is this general impression that equity capital has no cost. This is because equity represents the owners' stake in a business. But that is not true. The people who reason that equity has no cost do so because it is not legally binding on a firm to pay dividend.

In a normal situation, dividends are paid after a company makes profit and pays taxes to the Central authorities. What is left after taxation can

now be paid out as dividend. Also if a firm makes a loss, then no dividends will be paid.

In real life, shareholders of a company invest their money in the company with the hope of earning dividends or return on their investments. We should have it at the back of our mind that the market value of a share depends on the dividends expected by the shareholders. Now back to the cost of equity capital. Equity capital has two main components – external equity or new issue of common shares and retained earnings. Each of them has different costs. We shall now treat them separately.

### **Cost of external equity (new issues)**

External equity means new issues of common shares. And it is this cost that we want to measure. At any point in time, the management of a firm is responsible to existing shareholders, especially for dividends. So that when a firm is issuing new shares, it has to ensure that the earnings of existing shareholders is not diluted.

The cost of new issues of common shares (external equity) is the minimum rate of return which is required on the new investment, financed by the new issue of common shares that keeps the market value of the share unchanged. The central issue is how to measure this rate of return. We shall do this by examination of the dividend model. The dividend model seeks to explain that the price of a company's shares depends on the return expected by the shareholders.

This return is made up of the expected stream of dividends. Technically speaking, the cost of equity can be stated thus:

$$\text{Cost of equity, } K_e = D_1 + g P_0$$

Where  $D_1$  = Expected dividend  $P_0$  = Current price of the share  $g$  = the growth of the share.

### **Worked Example**

The current price of a share is N45 and the expected dividend per share next year is N4.50. If the dividends are expected to grow at a rate of 5%, calculate the cost of equity.

### **Solution**

$$\text{The cost of equity} = D_1 + g P_0$$

$$= N4.5 + g N45$$

$$= 0.10 + 0.05 \text{ Cost of equity} = 0.15 \text{ or } 15\%$$

We have measured the cost of external equity. The next thing we shall discuss is the cost of retained earnings.

### The Cost of Retained Earnings

The firm does not pay any dividends on retained earnings and for this reason, some people tend to regard retained earnings as cost free. But that is not true.

Retained earnings have a cost because it involves an opportunity cost. The opportunity cost of retained earnings is the dividend foregone by the shareholders.

In the analysis, the cost of retained earnings is measured by the equation

$$K_e = D + g P_o$$

Where  $K_e$  = cost of retained earnings.

The cost of retained earnings is the return expected by the common shareholders plus the growth in dividends. It is important to note that retained earnings belong to the common shareholders. It represents earnings that were not distributed to them.

### 3.3.5 Weighted Average Cost of Capital (WACC)

In taking financial decisions, the cost of capital that is used is the weighted average cost of capital (WACC). This is so because in a firm's capital structure, there are so many sources of capital. In a firm's capital structure there will exist equity and debt. It will be wrong to measure the cost of capital from a specific source and then go ahead to describe it as a firm's cost of capital. The cost of capital must be seen from the composite angle.

The composite or overall cost of capital is the weighted average of the costs of various sources of funds. The weights are the proportion of each source of funds in the firm's capital structure.

#### Computation of Weighted Average Cost of Capital

#### Worked Example

The following is the capital structure of a firm.

Source of Finance Amount (N) Proportion  
 Equity share capital 2, 250, 000 45%  
 Retained Earnings 750, 000 15%  
 Preference share capital 500, 000 10%  
 Debt issues 1, 500, 000 30%  
 Total 5, 000, 000 100% .

The firm's after- tax component cost of the various sources of finance are as follows:

**Source** Cost  
 Equity share capital 15%  
 Retained earnings 12%  
 Preference capital 10%  
 Debt issues 8%

The weighted average cost of capital can be computed as follows:

Weighted average cost of capital = 11.95 %

### **SELF-ASSESSMENT EXERCISE**

List four sources of capital in a firm's capital structure.

## **4.0 CONCLUSION**

In this unit, we introduced the cost of capital theory. We discussed the various sources of capital and their specific costs. We discussed the cost of equity capital and cost of retained earnings. We also discussed the cost of preference shares and the cost of debt. All these enabled us to discuss the weighted average cost of capital.

## **5.0 SUMMARY**

This unit treats the cost of capital theory. It tries to examine how the cost of capital is determined for the firm. There are various sources of finance for a firm and each source has a specific cost. But we saw that the cost of capital is seen from a composite perception.

## **6.0 TUTOR-MARKED ASSIGNMENT**

What do you understand by the cost of equity capital?

## **7.0 REFERENCES/FURTHER READINGS**

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## UNIT 2 TIME VALUE OF MONEY

### CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Time Value of Money
  - 3.2 Time Preference for Money
  - 3.3 The Time Preference Rate
    - 3.3.1 Compound Value
    - 3.3.2 Compound Value of a Lump Sum of Money
    - 3.3.3 Compound Value of an Annuity
  - 3.4 Present Value
    - 3.4.1 Present Value of a Lump Sum
    - 3.4.2 Present Value of an Annuity
    - 3.4.3 Present Value of a Perpetual Annuity
    - 3.4.4 Sinking Funds
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignments
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### 1.0 INTRODUCTION

In most of our financial discussions, we treated money in absolute terms. We did not consider time when computing the value of money. If a firm borrows N5,000,000 (five million naira only) from a bank in January 2007 to finance the acquisition of plant and machinery and repays the money in December 2007, a lot of people may not see the difference between the N5,000,000 in January 2007 and the other N5,000,000 in December 2007. But in real terms, the two sums of money do not have the same value because of what is known as the time value of money. In this Unit, we shall discuss the concept of the time value of money which is very important. The applications of the time value of money will feature repeatedly throughout this course.

Understanding the concept will be useful to you as you go along in your study.

### 2.0 OBJECTIVES

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

- discuss the concept of the time value of money
- explain the methods used to adjust the impact of time on money.

### **3.0 MAIN CONTENT**

#### **3.1 Time Value of Money**

In practical terms, time usually separates the firm's receipt of cash and its disbursement of cash in its day to day operations. Expenditures and other movements of cash out of the firm are usually termed outflows of cash while revenues and other movements of cash into the firm are termed inflows. Outflows and inflows are separated usually by time. But it is important to recognize the fact that the inflows that a firm expects to receive and the outflows should be logically comparable especially if they are separated by time. To explain the time value of money, we shall proceed by discussing the time preference for money.

#### **3.2 Time Preference for Money**

A rational person who is offered to collect the sum of N1,000,000 in January 2007 or December 2007 would prefer to collect the money in January 2007 instead of December 2007. There are many reasons for this namely: The future is uncertain and anything can happen to cancel the opportunity of receiving the money later. The desire to spend now instead of later. The money could be invested immediately to earn interest. Most people know profitable avenues to invest money.

This attitude of preferring money now instead of in the future is referred to as an individual's time preference for money. So we shall define "time preference for money" as an individual's preference for possession of a given sum of money now rather than at a future date.

The concept of the time preference for money does not apply only to individuals. It also applies to the firm. Firms are usually supposed to be rational investors and therefore properly recognize time preference for money. Ordinarily, a firm recognizes the fact that a future cash flow involves a lot of risks which arise from the market place.

#### **3.3 The Time Preference Rate**

We have recognized the fact that the same sum of money separated by time may not have the same value for a rational investor. If the time value of money exists, is there any way that it can be expressed? Yes. The time preference for money is usually expressed by an interest rate. This interest rate is usually known as the time preference or discount rate. This discount rate is very important in investment analysis and evaluation. Different individuals or firms will have

different discount rates. But in all, the discount rate is expressing the same thing.

For example, if an individual has a time preference rate of 20%, it means that he can forgo the opportunity of collecting N1,000,000 now if he is offered N1,200,000 a year later. It means he is going to be satisfied by earning 20% interest on his investment. Also firms have their own time preference rates which assist them in taking their investment decisions. As we shall see in subsequent units, the discount rate is a very crucial rate which cannot be glossed over in financial evaluations.

### **SELF-ASSESSMENT EXERCISE**

How is the time preference for money expressed?

#### **3.3.1 Compound Value**

Consider an individual called Peter Pan who on 1st January, 2007 deposits the sum of N1,000,000 in a savings account in Diamond bank at an interest rate of 10% per annum. By 31st December, 2007, the savings deposited with the bank would have earned an interest of N100,000 (one hundred thousand naira only). You will recall that in financial analysis, interest  $I = P \times T \times R$

Where

P = Principal

T = Time

R = Interest rate

By the end of December 2007, the value of Peter Pan's money in his savings account will be N1,000,000 + N100,000 = N1,100,000. On 1st January 2008, Peter Pan may decide to reinvest his money (N1,100,000) in the same savings account in his bank. This sum will grow at the interest rate of 10% per annum. By 31st December 2008, the money would have grown to N1,210,000 (one million two hundred and ten thousand naira only).

So generally if the investor (in this case Peter Pan) insists on earnings interest on his original sum N1,000,000 and also further interest on his interest of N100,000 earned for the year 2007, the concept is known as compound interest. Having understood the concept of compound interest, we will go a step further to examine the various forms that compound interest may take.

### 3.3.2 Compound Value of a Lump Sum of Money

Let  $P$  = Lump sum placed in a savings account

$r$  = Interest rate in decimal points e.g. 0.100

$n$  = no of years the sum is placed then  $I$  (interest) =  $P \times r \times n$

At the end of one year, the total sum of the previous lump sum can now be called  $A_1$ .

$A_1 = P + I$  (principal + Interest)

$= P + Prn$ , where  $n = 1$

$A_1 = P(1 + r)$

In year 2, Interest 1 =  $A_1 \times r = A_1 \cdot r$

The . Sum at the end of year 2 now called  $A_2$  is

$A_2 = A_1 + A_1 \cdot r$  (the Interest Component)

$A_2 = A_1 + A_1 \cdot r = A_1(1 + r)$

If we continue the process to  $n$  years.

We can now write generally that:

$A_n = P(1 + r)^n$  So generally, the equation for calculating the future value of a lump sum may be written as follows:

$A_n = P(1 + r)^n$

#### Worked Example

A sum of N1000 is placed in a savings account that promises 10% interest annually.

What will be the compound value at the end of 2 years. Note that 10% interest rate is also 0.10

#### Solution

Interest in year 1 can be derived as follows:  $I = P \times r \times n$

$= N1000 \times 0.10 \times 1$

$= N100$

$A_1$  (amount at the end of year 1) =  $N1000 + N100 = N1,100$

The principal sum at the beginning of year 2 is N1,100

Interest in year 2 =  $A_1 \cdot r$

$$= N1,100 \times .10$$

$$= N110$$

$$A_2 \text{ (amount at end of year 2)} = A_1 + A_1 \cdot r = N1,100 + N110 = N1,210$$

Using the formula, the compound value of the same amount can be computed by:

$$A_2 = P (1 + r)^2$$

$$= N1,000 (1 + 0.10)^2$$

$= N1,000 (1.21) = N1,210$  If you have followed this discussion very closely you will realize that if the number of years that a sum is invested is very long, the computation becomes rather difficult.

The solution can be obtained by the use of compound value tables. Generally, to compute compound value, the principal sum (Lump Sum) is multiplied by the appropriate compounding factor.

### Worked Example

A man deposits N50,000 in a bank deposit paying 10% per annum for a period of 5 years. What is the compound value of the sum at the end of 5 years?

### Solution

The first step is to determine the compounding factor from the table. Since the interest rate is 10%, open to the page for 10% under compound factor.

In the year column, the appropriate year is 5. The corresponding compound value factor is 1.610510. Multiply the principal sum by the compound value factor i.e.  $N50,000 \times 1.610510$

$$= N80,525.50$$

### 3.3.3 Compound Value of an Annuity

We have discussed the compound value of a lump sum of money. We will now discuss the compound value of an annuity. An annuity is a sequence of periodic equal payments. Ordinarily an annuity may be paid at the end of say each year. In investments, interests are also paid on the annuities.

The difference between a lump sum and an annuity is that while a lump sum is one sum that increases with interest and time, and annuity is paid at the end of a period possibly a year.

Example

On 31st December of each year, International Manufacturing Company Limited pays in the sum of N5,000 into an Investment fund yielding 10% interest annually for a period of 5 years. How much is the worth of the annuity?

### **Solution**

You will need to use the compound value of an annuity table to get the answer. From the compound value of an annuity table, you get the compounding factor to be 6.105100.

The sum of the annuity will be  $N5,000 \times 6.105100$   
 $= N30,525.50$

The interpretation of this is that if you invest N5000 annually for 5 years at an interest rate of 10%, the sum of money will grow to N30,525.50 at the end of five years.

## **3.4 Present Value**

When we treated compound value, we arrived at a technique for estimating any amount of cash into its future value. In the present value technique it is the opposite. The central question to be asked is “What is the present value of a future sum of money given an investors time preference rate?”

The present value of a future cash inflow or outflow is defined as the amount of current cash that is of equivalent desirability, to the decision maker, to a specified amount of cash to be received or paid at a future date.

### **3.4.1 Present Value of a Lump Sum**

We have seen so far in our discussions that cash inflows and outflows that are separated by time can be logically comparable. They are comparable only if there is a time preference rate or interest rate being used by the decision maker or investor. By implication, if a person is promised a sum of money in the future, it must also have a present value for the person today. We shall define present value of any future cash inflow or outflow as the amount of present cash that has an equivalent value with a sum to be received at a future date or spent in the future. You will recall that when treating compound value, we said that the compound value of a lump sum of money is usually expressed by the equation:  $An = P ( 1 + r ) n$

Substituting for P becomes

$$P = \frac{A_n}{(1 + r)^n}$$

$$(1 + r)^n$$

P is the present value of an amount  $A_n$  to be received in  $n$  period.

Generally we can state thus:

To get the present value of any future amount, all that you need to do is to multiply the future amount by the discount factor.

You will need to refer to a discount factor table to be able to do this.

### **Example**

A sum of N1000 is to be received by Mr. Bola in 5 years time. The interest rate or discount rate is 10%.

What is the present value of the N1000 that will be received in 5 years time?

### **Solution**

The first step is to get the correct discount factor. The correct discount factor can be got from the discount table. Open the section on 10% in the table. You will notice that the appropriate discount factor is .620921 (from the year 5 column).

$$\text{Present value} = N1,000 \times .620921$$

$$= N620.921.$$

The Interpretation given to this result is that N620.921 today is the same as N1000 to be received in 5 years time if the interest rate is 10% per annum.

Generally thus, to estimate present value of a lump sum, the basic technique is to multiple the future sum by the discount factor.

You can now write thus:

$$PV (\text{present value}) = \text{future sum} \times \text{discount factor}.$$

### **3.4.2 Present Value of an Annuity**

We have just discussed the present value of a lump sum of money. In that same way, we could equally discuss the present value of an annuity.

You will recall that we have earlier defined an annuity to be a sequence of periodic equal payments. Since the payments are made at the end of each period, it is possible to compute the present value of an annuity.

Consider an investor who receives a series of annuities  $A_1$  in different years.

In year 1, he receives an annuity. In year 2, he receives an annuity.

We can write that the present value of all the annuities can be estimated thus:

Year 1. Present value of annuity =  $A / (1 + r)$

Year 2. Present value of annuity =  $A / (1 + r)^2$

Year 3. Present value of annuity =  $A / (1 + r)^3$

If we add up all the present values, we will get the total present value of all the annuities.

However you will realize that if the number of years involved is very large, then the calculation of the present value of an annuity becomes rather difficult and cumbersome.

The computation of the present value of an annuity can be made easier with the use of an appropriate table known as the present worth of an annuity factor table.

### Example

At the end of 31st December of each year Alhaji Bashir deposits N500 into his bank savings account for a period to cover 15 years. The interest rate is 8% per annum. What is the present value of the annuity?

### Solution

The first step is to get the correct present worth of an annuity factor. From the table, the factor is 8.559479.

Present Value of annuity =  $N500 \times 8.559479$

= N4,279.7395

### SELF-ASSESSMENT EXERCISE

Laraba is 25 years old. How much should she invest each year so that by the age of 40, she would have the sum of N100,000 in her savings account in the bank. The interest rate is 10% per annum.

### 3.4.3 Present Value of a Perpetual Annuity

When we discussed the present value of an annuity, we did attach a time frame. However, there are situations where annuities are expected to run for ever.

When a series of constant periodic sum (annuities) is expected to be go on perpetually (forever), the perpetual constant periodic sum is called a perpetuity.

Let  $A$  = Perpetual Sum of money

$r$  = Interest rate

Then  $P$  (Present value of a perpetuity) =  $\frac{A}{r}$

#### Example

Harry expects to receive a perpetual sum of N500 annually from his investment in shares. What is the present value of this perpetuity if his time preference or discount rate is 10%.

#### Solution

The present value of the perpetuity can be determined thus  $N \ 500 \ P$   
 $= \frac{A}{r}$  or  $\frac{500}{0.10}$   
 $P = N5000.$

The present value of the perpetuity is N5000.

### 3.4.4 Sinking Funds

Most often, it is very difficult to raise money at very short notice. And so, most forward looking firms plan their investments so that acquisition of much needed equipment will not be problematic. Such firms keep money aside periodically to purchase or replace equipment.

When such a fund is created, it is called a sinking fund. Also when a country borrows money from other countries, it is fair to create a sinking fund to accumulate the value of the principal loan amount and interest as at the target date of repayment.

#### Example of sinking fund

Master Ebo is 8 years old. In the next 10 years, he will enroll at the University of Ibadan to read medicine. His father intends to

save N250,000 for his University education by investing in an industrial stock yielding 10% interest.

How much should Ebo's father invest annually so that he will be able to get N250,000 for his son's education in the next 10 years.

### **Solution**

The most important step is to determine the sinking fund factor from the table. From the sinking factor table, the appropriate sinking fund factor is 0.062745.

$$N250,000 \times 0.062745 = N15,686.25$$

Sum required for Sinking fund money to be invested master Ebo's factor for 10 annually by Ebo's father. education years at 10%.

### **ANSWER TO SELF-ASSESSMENT EXERCISE**

1. The time preference for money is usually expressed by an interest rate. This interest rate is usually known as the time preference or discount rate. The discount rate varies between Individuals.

2. The difference between 40 years and 25 years is 15 years. The future sum Laraba expects is N100,000. Let the amount she will invest annually be A

$N100,000 = A \times$  Compound value of annuity at 10% for 15 yrs

$$N100,000 = A \times 31.772$$

$$A = \frac{N100,000}{31.772}$$

$$A = N3147.43.$$

So Laraba will need to invest N3147.43 annually for 15 years so as to get N100, 000 by the time her age will be 40 years.

## **4.0 CONCLUSION**

In this first unit, we have discussed fully the concept of time value of money which is very crucial in our study. We also looked at time preference for money. We treated compound values and also annuities. Finally, we discussed sinking funds.

## **5.0 SUMMARY**

This unit treats the time value of money, time preference for money, compound value of a lump sum of money, compound value of an annuity, present values of an annuity and perpetuities.

All these provide us with the necessary background for further discussions. Now that the background has been built, in the next unit, we shall discuss Basic Valuation Models

## **6.0 TUTOR-MARKED ASSIGNMENT**

Why is the consideration of time important in financial decision making? How can time be adjusted?

## **7.0 REFERENCES/FURTHER READINGS**

Leon, Ikpe (1999). Project Analysis and Evaluation, Impressed Publishers, Lagos.

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## **UNIT 3      CAPITAL BUDGETING**

### **CONTENTS**

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- 2.0 Objectives
- 3.0 Main Content
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### **1.0 INTRODUCTION**

Capital budgeting is a very major topic because the capital budgeting decisions are in the frontline of company decision making. The capital budgeting decision involves the firm's decision to commit funds in assets. Some of the commitments are not easily reversible. The Investment decisions of the firm influence the earnings of the firm and also its return-risk characters. The earnings of the firm also affect the values of a firm's shares and subsequently the wealth of shareholders.

It is because of all these that we consider the discussion on capital budgeting very necessary in such a class as yours.

### **2.0 OBJECTIVES**

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

- discuss capital budgeting
- describe the Capital budgeting process

### **3.0 MAIN CONTENT**

#### **3.1 Capital Budgeting**

A major function of the firm is the allocation of resources as it engages in its activities. The way the firm allocates its resources affects its earnings and also its risk characters. The effect of the investment decisions of the firm will not be felt for one year only. It will be felt over a period of years. Again, investment decisions are mainly irreversible. For example, when a firm invests in the construction of a brewery, it will not be possible for it to easily disinvest. So generally, you will see that the investment decisions of the firm affect its earnings, its value and the wealth of shareholders. Because of the importance of capital budgeting, we shall discuss it in detail so that we can understand how best to make wise investment decisions. Having said this, we shall now proceed to discuss the nature of investment decisions.

#### **3.2 The Investment Decisions of the Firm**

The investment decisions of the firm are what we shall define as the capital budgeting decisions. The capital budgeting decisions involve the planned commitment of resources into activities with a view to earning revenues. Let us briefly discuss the nature of some investment decisions of the firm namely:

##### **Initiation of a new project**

Consider a firm that decides to set up a sachet water manufacturing plant. It will construct the factory building, purchase and install the necessary machinery/equipment, recruit the necessary staff and commence the actual production of the sachet water. This is a classic example of what is called a new project. In the literature some analysts refer to a new project as a start-up and in some cases they are called green projects. New projects create new products, new wealth and improve on the general welfare of the larger society especially if they are well managed.

##### **Mechanization of a process**

At times, firms invest funds in the mechanization of their manufacturing processes. For example, a soap manufacturing firm which uses the cold process of soap manufacture might decide to mechanise its processes by investing in a mechanized soap plant that will cost N1,000,000. However, the soap plant will save operating expenses of N50,000 for 10 years.

We shall call the investment a decision to invest N1,000,000 with the aim of saving N50,000 for 10 years. You will observe that the total saving will be N500,000 for those 10 years. The key question is whether or not the firm should undertake the Investment.

### **Choosing between alternative machines**

At times the Investment decisions of the firm center on choosing between alternative machines. Consider a firm that has the option to choose between two machines namely:

- An injection moulding machine that costs N4,000,000, has an installed capacity of 2,000 bottle caps per hour but has annual operating expenses of N500,000.
- An injection moulding machine costing N2,000,000, has an installed capacity of 1,000 bottles per hour but has annual operating expenses of N700,000.

The key capital budgeting decision centers on the two options to be taken.

### **Make or buy decisions**

A car manufacturing plant is deciding whether to manufacture the car's speedometer or to purchase from a reputable manufacturer of car speedometers.

If for example, the speedometer manufacturing plant will cost N10,000,000 to install but will reduce the Unit price of a speedometer by N1000, the investment proposal involves a decision on whether to commit the sum of N10,000,000 to achieve a Unit price cut of N1000 per speedometer. The answer to this question will depend on many other things or considerations.

### **Expanding the business**

A yoghurt manufacturing plant wants to increase its production capacity.

To increase this capacity it will need to install new machinery and equipment costing N20,000,000. The new equipment will increase annual revenues by N2,000,000 but increase operating expenses by N1,200,000 for the next 15 years. In this case, this is a decision on whether to spend N20,000,000 today to get a net annual income of N800,000 for the next 15 years.

All the examples we have discussed are real life situations which you as evaluators will find yourselves in.

If you pause a while you can summarize that the capital budgeting decisions of the firm will involve the decision to initiate a new project, the mechanization of a process, choosing between alternative machines, make or buy decisions and expanding the business.

Such is the nature of the capital budgeting decision. We need to point out clearly that the decisions on current assets do not constitute capital budgeting decisions.

The decisions on how to manage the current assets of the firm fall into the area of learning called working capital management.

To conclude, we shall stress the importance of capital budgeting decisions. They affect the wealth of the firm. If the capital budgeting decisions of the firm turn out to be profitable, then the firm's wealth will increase and obviously the shareholders wealth will be maximized.

Also we shall repeat the fact that capital budgeting decisions have long term implications for the firm. The decisions that a firm takes today will influence its value for the next twenty or thirty years.

Again, we stressed that capital budgeting decisions involve large scale commitment of scarce resources. If the resources required for capital budgeting are not available inside the firm, then the firm will need to raise money externally and this becomes a financing decision of the firm.

We must also add for your careful understanding that capital budgeting decisions are one of the most difficult decisions to make in the firm. They are difficult to make because they involve assessments of future cash flows.

As you are aware, assessment of the future is very uncertain because of the existence of risks in the market place and the general operating macro environment.

Changes in government policies affect the firm either positively or negatively. Changes in technology affect the firm in a number of ways. They may lead to firms modernizing their equipment.

### 3.3 The Capital Budgeting Process

In the last section, we spent quite some time discussing the concept of capital budgeting which we agreed was a very important topic in our quest for understanding the evaluation methods. And having done that, we shall now focus our attention on the capital budgeting process. The capital budgeting process involves all the processes involved from the conception of a project to its execution. The various processes constitute what is known as the project cycle.

#### The project cycle

Project Idea Stage

Project Identification Stage

Project Evaluation Stage

Project Selection Stage

#### 3.3.1 The Project Idea Stage

The project idea stage is the first stage of a project cycle. The idea about a project arises from a variety of sources within the internal environment or market place. New project ideas could originate from within an organization or from outside the organization. If the idea originates from within, it could be from a sales person who has encountered some success or problems with customers while performing his or her functions.

You will also realize that a new project idea could emanate from outside an organization. Coming from outside an organization, it could be requests from existing customers asking for bigger or better products.

New project ideas may fall into any of the following categories:

Proposal to add new products to existing lines.

A company with existing product lines may decide to add new products to its existing lines.

Proposal to expand capacity in existing lines.

A company may have a proposal to expand capacity to enable it take advantage of enlarged market opportunities.

We need to stress that new project ideas may originate from any level in an organization. A factory cleaner within an organization can come up

with a new product idea. Also an executive director in an organization can also generate a new project idea.

### **3.3.2 Project Identification Stage**

After the project idea stage, the next stage is the project identification stage. The project identification stage consolidates the idea stage. Project ideas are not really useful except if they are clearly identified and put down in a systematic manner for further processing.

The idea to introduce a new product into the market may come from a company salesman who is very familiar with the market. At the board room level, the entire organization has to see the project idea properly and clearly identify it as a possible area of business investment. The totality of the new idea will be considered.

### **3.3.3 Project Evaluation Stage**

When a project has been identified, the next step is to evaluate the project. Project evaluation involves the estimation of the benefits and costs of a project. Benefits and costs should be measured in terms of cash flows. We have to emphasise at this point that the estimation of the cash flows of a project is a very difficult task. It is difficult in the sense that the cash flows to be estimated are future cash flows. For example in the year 2007, we will try to estimate the cash flows for the year 2008.

In a corporate set up, the evaluation of projects should be carried out by a team of experts drawn from the various departments like production, marketing, accounts and administration. The team of experts should be objective in their evaluation of projects.

Alternatively, the evaluation of a project may be contracted out to third parties like consultants. Contracting evaluation of projects to outside parties tends to eliminate bias.

### **3.3.4 Project Selection Stage**

After the project evaluation stage, the next stage is the project selection stage. Faced with an array of projects with different values and worth, there is need to select which projects will be embarked upon. There is no standard procedure for selecting projects as this will differ between firms. The important thing to note is that the project selection function is a top management responsibility which in most cases goes to the board of Directors of an organization. In selecting projects, management usually considers the financial outlays involved

and match them with the financial capabilities of the firm. For example, a firm that has only N10,000,000 (ten million naira only) investment funds cannot be considering a new investment that involves a capital outlay of N40,000,000 (forty million naira only) except if it can source money externally like from banks.

### **3.4 Project Execution Stage**

The project execution stage is the final stage in the project cycle. After a project has been selected, it moves on to the execution stage. In most organizations, the responsibility for execution of projects is vested on a project management team raised by top management. The function of the team is to ensure that the budget for the project is spent entirely on the project and that the project is completed on schedule.

In an ideal organization, the project management team usually prepares a monthly budget report on projects to top management. This is important for project monitoring and control

#### **SELF-ASSESSMENT EXERCISE**

List three sources of new project ideas. 3.3 Investment Criteria

We have discussed capital budgeting and the capital budgeting process. The next topic we shall discuss is Investment Criteria. Having introduced capital budgeting decisions into the picture, we need to develop appraisal methods which we shall use to evaluate or measure the values of projects under consideration. Any appraisal method so developed and chosen should possess the following characteristics.

It should be able to provide the means of distinguishing between acceptable and unacceptable projects in a consistent manner.

It should be able to rank projects according to their values.

It should be able to solve the problem of choosing between alternative projects.

It should recognize the time value of money. And that early cash flows are better than later cash flows.

The Investment criteria consist of two broad categories namely the traditional criteria and the discounted cash flow criteria.

### 3.4.1 The Traditional Criteria

The traditional criteria consist mainly of two popular methods namely: The pay back (or payout) period The accounting rate of return method

### 3.4.2 The Discounted Cash Flow Criteria

The discounted cash flow criteria consist mainly of three main and popular methods namely:

The net present value method Internal rate of return Profitability index or Benefit – Cost ratio

We shall discuss these investment criteria at a later stage of our study.

## ANSWER TO SELF-ASSESSMENT EXERCISE

1. The stages of a project cycle are:  
Project idea stage Project identification stage Project evaluation stage Project selection stage Project execution stage
2. Three Sources of new project ideas are:  
From within the organization From outside the organization As a result of competition

## 4.0 CONCLUSION

In this unit, we have discussed capital budgeting. This took us through the investment decisions of the firm. We also discussed the capital budgeting process and introduced the concept of Investment Criteria. With that we closed our discussions.

## 5.0 SUMMARY

The capital budgeting decisions of the firm are the focus of this unit. And we have seen through our discussions that they are very important as they affect the return-risk characters of the firm. They also influence the value of the firm and consequently the wealth of share holders. Now that we have understood capital budgeting, we shall be discussing the cost of capital in the next unit.

## 6.0 TUTOR-MARKED ASSIGNMENT

What are the key steps involved in a capital budgeting process?

## **7.0 REFERENCES/FURTHER READINGS**

Leon, Ikpe (1999). Project Analysis and Evaluation, Impressed Publishers, Lagos.

Quirin, G. David, The Capital Expenditure Decision, Homewood, Ill: Richard D, Irwin Inc. 1967.

## UNIT 4 PORTFOLIO MANAGEMENT

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### 1.0 INTRODUCTION

The unit will take a cursory look at portfolio management vis-à-vis portfolio and resources analysis.

### 2.0 OBJECTIVES

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

- explain the concepts of portfolio management
- explain the importance of resources analysis
- identify other strategic option.

### 3.0 MAIN CONTENT

#### 3.1 Portfolio Management

#### 3.2 Portfolio Analysis

This technique is commonly associated with firms operating in a number of different businesses and markets. It also applied to those firms which operate in the same market with a number of different products. The technique is carried out to enable management assess the attractiveness of its business and products in their current market and assist decision on the direction of future investment.

The analysis may also enable manager to reach conclusions on the particular mix of products and markets, the growth and profit potential of the market and product as well as their attendant and level of risk. With a clear picture thus provided the organisation can then prioritize its resource allocation and direct her effort towards those areas of prime importance. Several models are used for portfolio analysis but for this purpose we shall consider the MATIX technique developed by the Boston Consulting Group as shown in Fig. 2.

**Fig. 2:** Illustration of portfolio analysis (Source Hofer and Schendel (1976).

#### 3.3 Question Marks

This represents products which have a low market share in a market of high growth. The market has clear potentials but the firm needs significant financial and resource inputs to favourably compete in the market. The inputs may be in form of product modification, increased output capacity, increased promotional activity, recruiting extra staff and Market growth rate.

High

Low

Low High Stars

Cash cows, Question Mark, Dogs Market Share raising the level of bank borrowing. Investing in Question Marks carries a high risk.

##### 3.3.1 Cash Cows

These represent products with a high market share but for which market growth has stabilized. The market is generally less competitive and less costly to maintain compared with stars. It provides the greatest return

on investment for the firm. The fund can be channeled to fund the development of question marks and to maintain stars.

### **3.3.2 Stars**

Here the products have achieved a high share of a still expanding market. Its maintenance is high. It requires continuing investment in product development and promotion as the market usually attracts a number of competitors.

### **3.3.3 Dogs**

These products represent the poorest profile on the matrix. It tends to be a drain in resources and as such firm may be unwilling to devote attention to them. Dogs are not necessarily worthless products. Fresh ideas or new management could require the products and make them more viable and competitive.

## **3.4 Resource Analysis Resource Profile is a Key aspect of Management Strategy**

It helps management to establish whether the various opportunities, threats and management expectations can be met by bearing in mind the current state of affairs in the organisation. Adequate information on the resources available to management is prerequisite for determining future plans and establishes whether a gap exists between what management would like to do and what they can do. This concept is commonly referred to as gap analysis.

Gap analysis helps management to identify those resource aspects which may be lacking and which will have to be rectified if opportunities are to be realized or threats are to be successfully fought off. Resource analysis will embrace all physical resources such as land, plant and machineries, financial resources and human resources. Carrying out resources analysis may entail:

- Staff audit to determine current manpower and future manpower required.
- Taking an inventory of machines and equipment currently available with a view establishing shortage or surplus.
- The use of accounting ratios such as profitability and return on capital.
- The value of resource analysis lies not only in assessing the viability of a particular strategic proposal but also in assessing the ability of the organisation to adapt to changes.

### 3.4.1 Ratio Analysis

Ratio analysis provides an insight into the financial condition of a company by examining its financial statements. The outcome can be compared with those of the competitors or within the company for a given year or time.

Ratios are easy to calculate and its value is hinged on the fact that it leads to questions whose answers may paint an accurate picture of the financial condition of the company. Financial ratios group with six categories namely: liquidity, leverage, coverage, profitability, market ratio and activity ratios. The main limitations of these ratios are: • It provides historical information (that is, it describes what has happened to a company over the preceding years:

- Its significant depends on the quality of the underlying numbers.
- (a) Activity Ratios: measure how efficiently a company is using its assets.

This is done by relating sales to total assets, account receivable and inventory.

Total asset turnover ratio =  $\frac{\text{Net sales}}{\text{Total assets}}$

It measures efficiency by showing the Naira in sales generated by each naira of assets.

Average collection period =  $\frac{\text{Account receivable}}{\text{Net sales}/365}$

Days inventory or inventory turnover ratio is calculated as:

Days inventory =  $\frac{\text{Inventory}}{\text{Cost of goods sold}/365}$

#### (b) Leverage Ratios

Measures the extent to which a company uses debt rather than equity to finance the company's assets. The higher the proportion of debt, the higher the chance of financial distress.

Debt Ratio =  $\frac{\text{Total debt}}{\text{Total assets}}$

Debt to networth ratio =  $\frac{\text{Total Liability}}{\text{Networth}}$

The ratio measures the borrowing ability of a company.

## (c) Coverage Ratios

Measures the extent to which the current debt obligations of a company are covered by the flowing for operations.

It provides a quick indication of financial health of the company.

Times interest earned ratio =  $\frac{\text{earning before interest \& tax}}{\text{Interest expense}}$

Cash flow to current maturities ratio:

=  $\frac{\text{earning after tax depreciation} + \text{depreciation} - \text{dividend current maturities of long term debt}}{\text{Total Assets}}$

## (d) Profitability Ratios

This measures the ability of a company to grow and to repay debt.

The next Return on Total Asset (ROA).

=  $\frac{\text{Earning available to common shareholders}}{\text{Total Assets}}$

It measures profitability in terms of how efficiently a company uses its assets.

Net return on common equity.

=  $\frac{\text{Earnings available to common shareholders}}{\text{Common equity}}$

This ratio measure the return earned on common equity. A reduction in the net return on common equity reflects a higher level of common equity more than it does in earning.

## (e) Market Ratios

This associate the market price of a share of stock with its earnings per share or its book value per share. High values for these ratios reflects investors confidence in the company.

Price-to-earning ratio =  $\frac{\text{Market price per share}}{\text{Earning per share}}$

Companies with high growth potentials tend to share higher price-to-earning ratios while riskier companies tend to share lower price-to-earning ratio.

Market-to-book value ratio =  $\frac{\text{Market price per share}}{\text{Book value per share}}$

### 3.5 Other Strategic Options

Other strategic options available to management are:

- Diversification strategies;
- Strategies to change the competitive position of an existing business;
- Deleting operation;
- Consolidation.

### 3.6 Diversification Strategies

Diversification is a radical growth strategy deliberately aimed at changing the nature of the business. It means venturing into new areas of production.

Firm embarks on diversification for the following reasons:

- To reduce the risk of being dependent upon the success of one product
- To utilize spare capacity, either because
- There has been a reduction or termination of product in the previous area because of un-profitability;
- Because of seasonal fluctuation in the market.
- To offer a wider range within the same market;
- To put by-products to profitable use;
- As a result of integration, diversification can be classified into two namely related and unrelated diversification.

- **Related diversification**

This is the case when new is related in some way to the old one. It may be uniform or backward integration, such have control over the source of raw materials or forward integration, which recurs when product, diversify to control the onward process of delivering their goods to the consumers or horizontal integration which occurs when the products range is extended to incorporate similar items: A typical example could be a firm dealing in fitted kitchen venturing into fitted bathrooms.

- **Unrelated diversification**

This occurs when management ventures completely into a totally new or different product market for example, a firm that deals in food and beverages venturing into the sales of clothes.

A concept commonly associated with unrelated diversification is SYNERGY- which presupposes that the collective influences of the various activities of the company producing an overall effect that is greater than the sum of the parts.

Where a company embarked on this type of diversification to grant semi autonomy to each product line or unit, while the units shares some central services.

### **3.6.1 Strategies to Change the Competitive Position of an Existing Business**

This approach attempt to improve the market position of the existing range of products and services through:

- New product development;
- Improved market penetration;
- Seeking new market;
- Improve quality of product;
- Cost reduction.

These strategies are related and can be achieved by making internal strategic changes.

- (a) New products- particularly those that will appeal to the public may command a high price. The high price should compensate for the high cost of production
- (b) Market Penetration - commonly referred to as penetration strategy is aimed producing high output with a view at attaining volume of sales with low profit margin per unit. It requires longterm planning.
- (c) Seeking New Markets - this may be achieved through segmentation strategy where products are aimed at new market segment.
- (d) Improving quality of Product - the quality of product and service will determine the degree of customers' patronage. Optimum sale may be achieved if customers are to pay for superior quality product otherwise optimum sale revenue will be depend upon reducing the quality of product and service so that there will be no reduction on sale.

### **3.6.2 Deleting Operation**

This is commonly referred to as RATIONALIZATION OR DIVESTMENT.

A situation where a firm decides to cut back and/or sell off part of the operation. It may eventually include liquidation or closure.

### **3.6.3 Consolidation**

This involves the firm operating in the same product market at existing level.

### **3.6.4 Strategic Choice**

With various options available to management, the manager must make a choice. Making a choice will entail considering a lot of factors such as:

- An analysis of environmental threats and opportunities;
- An analysis of company resources;
- The stated objectives of the company and those of the management team;
- The values and preferences of management decision-makers;
- The realities of organizational politics.

### **SELF ASSESSMENT EXERCISE**

Identify and briefly explain the strategic options available to a firm that wants to change its competitive position.

## **4.0 CONCLUSION**

Portfolio management requires that a management faced with a number of strategic options could make a decision after considering a number of factors such as:

- Analysis of environmental threats and opportunities;
- An analysis of company's resources;
- The stated objectives of the company and those of the management team;
- The values and preference of management decision-makers;
- The realities of organizational politics.

## 5.0 SUMMARY

Portfolio management enables management to assess the attractiveness of its business and product's on their current market and to assist decision on the direction of future investment.

Portfolio analysis is carried out using the matrix technique; the outcome of the analysis will enable management to prioritize its resource allocation and to direct her effort towards those critical areas. Before taking a decision, management must have adequate information on the resources at its disposal with a view to determining the future plans and establishing whether there is a gap between what management would want to do and what they can do. Resource analysis will embrace land, plant and machineries, financial resources and human resources.

### ANSWER TO SELF ASSESSMENT EXERCISE

The strategic options available are:

- The development of new product
- Improved market penetration
- Seeking new markets
- Improving the quality of products and services
- Seeking cost reduction

N.B: Brief explanation of each strategic option required.

## 6.0 TUTOR-MARKED ASSIGNMENT

Using the matrix technique, explain the concept of portfolio management.

## 7.0 REFERENCES/FURTHER READINGS

Needle, David (1994). *Business in Context*, 2nd Edition London: Thomson Business Press.

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## **UNIT 5    DISCOUNTED CASH FLOW CRITERIA**

### **CONTENTS**

- 1.0 Introduction
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### **1.0    INTRODUCTION**

In this unit we shall discuss Discounted Cash Flow Criteria.

### **2.0    OBJECTIVES**

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

- understand discounted cash flow criteria in investment decision making.
- discuss their practical applications

### **3.0    MAIN CONTENT**

#### **3.1    Discounted Cash Flow Criteria**

Our task in this unit is to discuss investment criteria that recognize the time value of money in evaluating investment proposals. The two methods are the net present value (NPV) method and the internal rate of return (IRR) method. As a group they are known as the discounted cash flow methods. We shall now devote more time discussing them.

### 3.2 The Net Present Value (NPV) Method

The net present value method is the most admired amongst the discounted cash flow methods of evaluation. This is so because it recognizes the time value of money. At the background, it correctly postulates that cash flows which arise at different periods have different values. And that they can only be comparable when their present values have been computed.

In the analysis, there are three basic steps to be taken to compute the net present value (NPV).

First, an appropriate rate of interest is selected which will be used to discount cash flows. Technically, the appropriate rate of interest to be used is the firm's cost of capital which as we said is the minimum rate of return expected by the investors to be earned by the firm on any of its investment proposal.

Secondly, the present values of investment proceeds (inflows) are computed and the present values of investment outlays (outflows) are computed also using the cost of capital as the discount rate.

Thirdly, the net present value (NPV) is computed by subtracting the present value of cash outflows from the present value of cash inflows. If the present value of cash inflows is greater than that of outflows, then the project has a positive net present value. However if the present value of cash inflows is lesser than the present value of cash outflows, then the net present value of the investment proposal will be negative. We shall now proceed to define the net present value NPV method.

The net present value method is a process of calculating the present value of cash flows (inflows and outflows) of an investment proposal using the cost of capital as an appropriate discount rate. And like we said, the net present value is found out by deducting the present value of cash outflows from the present value of cash inflows.

Assuming that all cash outflows of an investment are made in year to, then the equation for the net present value is given by:

$$NPV = \frac{A_1}{(1+k)} + \frac{A_2}{(1+k)^2} + \dots + \frac{A_n}{(1+k)^n} - C \quad (1+)$$

Where  $A_1, A_2 \dots + + A_n =$  Cash inflows

$K =$  the firm's cost of capital  $C =$  cost of the investment proposal  $n =$  expected life of the investment proposal.

Under the net present value method, the acceptance rule is to accept the investment proposal if the net present value (NPV) is positive and to reject it if the net present value is negative.

### Worked Example

A bakery project costs N2,000, 000 to set up and generates year end cash inflows of N800,000, N900,000, N1,000,000 and N800,000 over a four year period. The required rate of return is 10%. Calculate the Net present value of the bakery project.

### Solution

Year	Cash Inflow (N)	Discount Factor	Present Value at 10% of Cash Inflow (N)
1	N800, 000	.909	727,200
2	N900, 000	.826	743,400
3	N1,000,000	.751	751,000
4	N800, 000	.683	546,400
2,768,000 Less Project Cost			2,000,000
Net Present Value			= 768,000

### 3.3 Interpretation of Net Present Value (NPV)

We have used the example of the bakery project to compute net present value (NPV). But we need to understand what NPV is and be able to interpret it.

The positive net present value may be interpreted as the immediate increase in the firm's wealth if the investment proposal is accepted. It is equivalent to an unrealized capital gain. The unrealized capital gain will be when the expected cash inflows materialize.

#### 3.3.1 Evaluation of Net Present Value Method

We have discussed the net present value concept and used an example to compute the NPV of a project. We shall go ahead to evaluate NPV method.

The most important merit of the NPV method is that it recognizes the time value of money. Also it considers all the cash flows that arise throughout the duration of the investment project. The NPV method is consistent with the objective of maximizing the objective of the firm.

However the Net present value method suffers from some limitations. Firstly, it is difficult to use. It involves the use of discount tables and also computers.

Secondly, in calculating NPV, it is assumed that the appropriate discount rate is known. The discount rate to be used is the firm's cost of capital. The cost of capital is not very easy to compute. The NPV method may not give satisfactory answers when the projects in question have different initial outlays. NPV result may be misleading when we are dealing with alternative projects – under capital rationing situations.

### 3.4 The Internal Rate of Return (IRR) Method

We have discussed the net present value method and did a computation of NPV. We shall now discuss the internal rate of return (IRR) method.

The internal rate of return is another discounted cash flow technique which recognizes the time value of money and apparently the magnitude and timing of cash flows.

The internal rate of return (IRR) can be defined as that rate which equates the present value of cash inflows with the present value of cash outflows of an investment. At that rate (IRR), the net present value of the investment is zero (0).

It is called an internal rate because it depends entirely on the outlays and inflows of the investment and not any other rate outside the investment. If we write the equation:

$$C = \frac{A_1}{(1+r)} + \frac{A_2}{(1+r)^2} + \dots + \frac{A_n}{(1+r)^n}$$

Where C = the Investment outlay

A<sub>1</sub>, A<sub>2</sub> + + ... A<sub>n</sub> = Cash inflows

$$\text{Then } 0 = \frac{A_1}{(1+r)} + \frac{A_2}{(1+r)^2} + \dots + \frac{A_n}{(1+r)^n} - C$$

The value of  $r$  in the equation where the cash inflows and the investment outlay is zero is known as the internal rate of return.

Under the internal rate of return (IRR) method, a project is accepted if the internal rate of return is higher than or equal to the minimum required rate of return. This minimum required rate of return is known as the firm's cost of capital.

### **3.4.1 Interpretation of IRR**

The interpretation of IRR is that it is the highest rate of interest that a firm will be ready to pay on the funds borrowed to finance a project without being financially worse off after repaying the principal and interest. In a technical sense, the IRR is the break – even rate of borrowing from a bank. Obviously if a firm is able to borrow at a rate lower than the internal rate of return, the investment project will be profitable.

### **3.4.2 Measurement of Cash Flows**

In the earlier section of this unit, we discussed two of the discounted cash flow methods – the Net present value (NPV) and the internal rate of return (IRR) methods. And we saw that the two methods used information on cash flows for the investment analysis.

In discussing both methods, we discussed cash inflows and cash outflows. But at this point in time, we are going to take a technical look at cash flows and make sure we understand how they are used in the investment analysis.

A lot of students do confuse profit and cash flows. And so we must first draw a line between the two. Changes in profits may not lead to changes in cash flows.

Increase in profit may be tied up in credit sales with no increase in cash flow. So a firm may be very profitable but at the same time will be experiencing severe cash flow problems.

So it is to be stated that in the Investment Analysis, it is the inflows and outflows of cash that is important. In an ideal situation, the receipt of cash is a clearly defined corporate objective.

### **3.4.3 Depreciation and Cash Flows**

In computing cash flows, the net cash flow is usually on an after – tax – basis. That is to say that taxation should be deducted before arriving at the net cash flow. In the computation of after- tax net

cash flows, the treatment of non-cash items deserve special treatment. One of those non-cash items is depreciation. Depreciation is a way of allocating cost of fixed assets. In accounting, depreciation is usually charged to the profit and loss account as a way of matching cost of fixed assets with their benefits. Depreciation however does not involve any outflow of cash. And so depreciation is usually ignored in cash flow computation. And in a situation where depreciation has been deducted before arriving at profit after tax, the practice is to add back depreciation to arrive at after tax net cash flow.

### Worked Example

Below is the projected income statement of Fellowship Aluminium Limited. Compute the net cash flow after taxation.

Note: The Company has an outstanding loan for which it pays N10, 600,000 per annum.

PROJECTED INCOME STATEMENT	FELLOWSHIP
ALUMINIUM LIMITED	
YEAR ENDING 31/12/ 2007	N REVENUE
Sales revenue	839,280,000
Direct Cost of Production	
Production raw materials	567,927,360
Electricity and gas	6,880,000
Repairs and maintenance	500,000
Depreciation of machinery	3,346,000
TOTAL DIRECT COSTS	578,653,360
INDIRECT COSTS	
Management and Labour	2,508,000
Interest and bank charges	3,000,000
Selling expenses	7,250,000
Insurance of assets	50,000
TOTAL INDIRECT COSTS	12,808,000
TOTAL DIRECT + INDIRECT COSTS	591,461,360
PROFIT before taxation	247,818,640
Taxation	74,000,000
Profit after taxation	173,818,640

PROJECTED CASH FLOW STATEMENT FELLOWSHIP  
ALUMINIUM LIMITED

CASHIN				FLOWS
N				
Profit		before		taxation
247,818,640				
Add		back		depreciation
3,346,000				
Total		cash		inflows
251,164,640				
CASH OUTFLOWS				
Loan				repayment
10,600,000				
Taxation				
74,000,000				
TOTAL				OUTFLOWS
84,600,000				
Cash	inflows	less	cash	outflows
166,564,640				
Opening		cash		balance
-----				
Closing		cash		balance
166,564,640				

### 3.4.4 Fixed Assets and Cash Flows

After treating depreciation, another item which we need to understand properly is fixed assets. What we are really interested in is the treatment of the purchase of fixed assets. In the cash flow analysis, when an asset is purchased, the purchase cost is treated as an outflow.

The entire purchase price is an outgoing.

### 3.4.5 Salvage Value and Cash Flows

When we talk of salvage value, we are talking of the estimated value of an asset at the completion of its useful life for the firm. Normally, salvage value is of two types namely:

- Book salvage value is the cost of the asset at the end of its useful life.
- Cash salvage value is the market value of the asset at the end of its useful life.

### SELF-ASSESSMENT EXERCISE

List four expense items that you consider as cash outflows in a firm's profit and loss account.

## **ANSWER TO SELF-ASSESSMENT EXERCISE**

Four expense items I consider as cash outflows in a firm's profit and loss account are:

- 1 Salary and wages
- 2 Raw material expenses
- 3 Advertising expenses
- 4 Telephone expenses

### **4.0 CONCLUSION**

In this unit, we have discussed discounted cash flow criteria. We discussed the net present value (NPV) and the internal rate of return (IRR).

### **5.0 SUMMARY**

In this unit, we have treated discounted cash flow criteria which are more sophisticated than the traditional criteria. We also discussed cash flows.

In the next unit, we shall discuss net present value (NPV) Vs internal rate of return (IRR).

### **6.0 TUTOR-MARKED ASSIGNMENT**

A hospital costs N5,000,000 to set up and generates year end cash flows of N1,000,000, N1,500,000, N2,000,000, N3,000,000. The cost of capital is 10%. Calculate the Net present value of the hospital investment.

### **7.0 REFERENCES/FURTHER READINGS**

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