
EDU 731: PROJECT MANAGEMENT IN EDUCATION

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MODULE 1

UNIT 1

CONCEPT OF EDUCATIONAL MANAGEMENT

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1.0 Introduction

Management is the execution of an assignment to achieve result which can be quantitative or qualitative. Management can be defined as the planning, organizing, directive and controlling of the rare resources of knowledge, people, information and technology to quantitatively achieve stated results with economy, efficiency and effectiveness.

Management can be further explained as a process of organizing and mobilizing all human and material resources in an educational system for the purpose of achieving the identified objectives of the system.

Various concepts related to educational management are fully discussed. These include planning, organizing, staffing, communication, controlling, and decision making.

2.0 Objectives

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

1. Define Educational Management
2. Identify and explain the processes of educational management
3. Identify effective management strategies that should be employed to achieve any educational goals.
4. State the enabling environment that will remove all form of ambiguity from stated goals.

3.0 Definition of Educational Management

Educational management is conceptualized as the theory and practice of the organization and administration of existing educational establishments and systems. Paisey (1981) defines educational management simply as the particular process of relating resources to objectives required in organizations, which explicitly exist to proved education. It is essential for you to employ effective management strategies in order to achieve any educational goals. This includes the cultivation of enabling environment that will remove all form of ambiguity from stated goals and expected functions of individuals.

Exercises

1. What do you understand y educational management?
2. Briefly, identify, the concepts of educational management.
3. Enumerate some strategies that could be employed to achieve any educational goals.
4. What type of environment does one need to cultivate in order to remove ambiguity from stated goals

3.1 Planning

Planning is the mapping out in broad outline what you need to do in an organization and the methods to do those things. The management process in any type of organization or institution starts with planning. Ukeje (1992) explained that the identification of purpose and objectives and the setting forth of the means of attaining them is planning and it is the work of institutional manager.

Due to the changing features in education, modern educational planning becomes imperative for any higher education. It is so far your university – The National Open University or the Universal Basic Education with many activities and huge resources, which calls for product financial management. Therefore, you must realize that planning is a continuous process in the life of any organization.

Exercises

1. What is meant by educational management?
2. Outline some of the process involved in educational planning.
3. Why do we need modern educational planning for higher education?
4. Is planning a continuous process in the life of an organization? Defend your answer.

3.2 Organization

Organization brings together the activities necessary to achieve the objectives of an institution and the facilities necessary for the performance of those activities into efficient working relation to one another.

It is well known that an ineffective structure would lead to chaos. So as soon as the objectives are set, then the next thing is to organize the activities of the organization. This will help in implementing the plan to attain its objectives. Organization takes the form of grouping activities harmoniously and assigning them to appropriate division or departments. The process further provides and allocates personnel, equipment, tools and materials as well as delegating authority to the managers. The materials and authority delegate to these managers should be commensurate with their responsibilities to enable them to implement the programmes of the organization (Koonta and O. Daniel 1976)

Exercises

1. How do you define organization as a concept?
2. Give at least two reasons to support the reason why organization as a concept is important in any given structure.
3. As an educational manager, enumerate the processes you would employ in organizing your organization.
4. Do you consider delegation of authority an important element in organization? Give one reason to support.

3.3 Staffing

Staffing involves manning the organization structure through proper and effective selection, appraisal and development of personnel to fill the roles designed into the structure.

In an organization structure, staffing is divided into line and staff. Line position occurs where a senior post carries greater responsibility and authority than the post immediately below it. However, in this modern time, categorization of staff according to line and staff is being de-emphasised. The basic requirements about staffing of organizations are that of availability of staff of various categories in sufficient numbers and in the right mix. Ukeje (1992) identified three main logical steps in staffing. These logical steps are:

1. Development of suitable organizational plan, which identifies positions available for the future and discloses the needs for talents.
2. Inventory and appraisal of existing and potential managerial manpower, comparing this with needs.
3. Planning for the acquisition of future needed manpower by either developing available talent that appears to the ability to fill future positions or by planning to acquire personnel from outside the organization.

3.3.1 Organization Requirement

Davar (1980) describes organization personnel requirements by recommending the following methods:

1. Annual estimates and vacancies should be determined
2. Determine long range of vacancies
3. Fix minimum man specification requirements and
4. Determine specific position estimates

Exercises

1. As head teacher/principal of a secondary school, enumerate the considerations that would guide you in the staffing of your school.
2. What would you take into consideration in making your estimates of the school requirements which you are expected to submit to the manager/proprietors of your school?

3.5 Communication

Communication is the transfer of information and understanding from one person to another person. Communication is a two way process, so you need to be a good listener. Communication is a way of passing others ideas, facts, thoughts and values. It is link of meaning among people so that they can share what they feel and know. By using this bridge, you can cross safely the river of misunderstanding that sometimes separates people. Communication involves two or more people, the sender and the receiver. It is important to understand that communications is what the receiver understands not what the sender say.

The basic requirements for good communication will help you assimilate this process better:

1. You must have something to say, for instance you might wish to interpret an educational policy on instruction, give assignments to subordinates, initiate new programmes or stimulate increased effort to work.
2. Clarify all your ideas on the subject before seeking to communicate to others.
3. Be prepared, prior preparation requires full consideration.

4. Briefly, clarification and relevance are essential ingredient for sound communication.
5. Develop a natural style of delivering your communication language wherever possible.
6. You must check continuously whether your message/talk/instruction has been properly understood.
7. Since communication is a two-way process, it is necessary for you to be a good listener too, so seek to be understood all the time and also to understand from this discussion so far, you will see how important communication is.

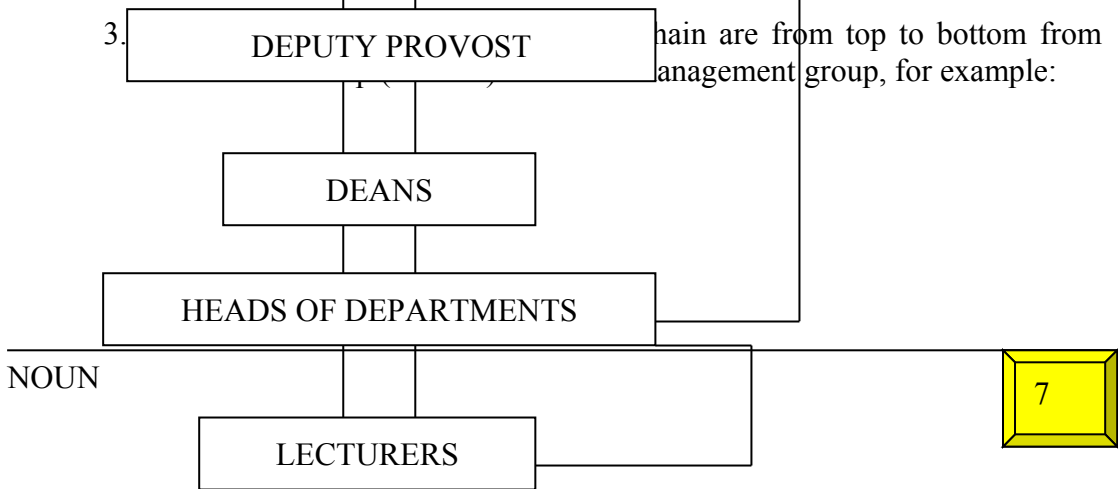
3.4.1 Management Communication

Management communication deserves equal emphasis. The effort should just be directed toward employees alone but to management equally.

Communication within the management group is called management communication of intra management communication. This level of communication must be emphasized because it is the pre-requisite to communication with employees.

According to Davies (1951), it is essential for educational managers to make sound decisions because of the following reasons:

1. Managers tend to be isolated from the point of performance. They can serve as competent decision centers only to the extent that they develop suitable information process. Many of the sources are within the management group.
2. The scope of managerial influence typically is greater than that of workers. Information to managers can affect a broad area because their span of supervision affects many people and activities.



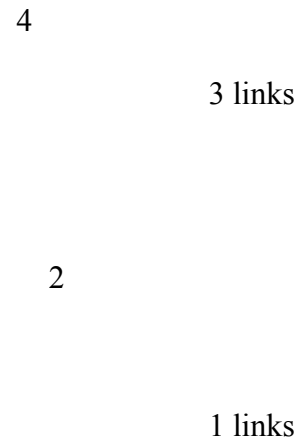


Fig. 1.1 Links in communication chain

Figure 1.1 shows how a communication chain from an employee (lecturer) to the employer (Provost) has three managerial links and only one employee links and since each link affords an equal opportunity for loss of information content, the greater proportion of loss tends to be within management when the communication chain is long.

Exercises

1. How will you improve management communication in your institution?
2. With the aid of diagram, describe the communication chain of your institution.

3.5 Controlling

3.5.1 Concept of Controlling

Controlling is an important regulatory device of organizational activities that keep targeted elements of performance to remain within acceptable limits. This process is called controlling.

According to Griffin, (1997), without regulation, organizations have no indication of how well they perform in relation to their goals. It is important to know, however, that any control process has three basic steps, namely:

1. Setting standards to achieve at strategic points
2. Checking and reporting on performance and
3. Taking corrective action (Musaaz) (1982)

3.5.2 Types of Managerial Control

Three types of managerial control will be discussed in this unit. The preliminary concurrent and feedback control

The preliminary control focuses on preventing deviations in the quality and quantity of resources needed in an organization. As you know it, human resources must meet acceptable levels of quality and be available at the proper time and place with adequate supply of plant and equipment should be ensured and financial resources must be available concurrent control, monitors on-going operations to ensure that objectives are pursued. The standards guiding on-going activity are derived from job descriptions and from policies resulting from planning function. This is implemented by the supervisory activities of educational managers to determine whether the work of others is preceding in the manner defined by policies and procedures.

Feedback control is the type of management control that we are going to consider. It focuses on end results. Corrective action is directed at improving either the resource acquisition process or the actual operations.

3.5.3 Principles of Controlling

Ukeje (1992) further enlightens our minds on control function by identifying five principles of controlling. These are:

1. Effective control should be based on clearly defined objectives.
2. The measurement techniques must be valid and reliable.
3. The control function must be continuous and information timely so that flaws are discovered and corrected in time.
4. Good controls follow organizational lines and responsibility for it is strategically placed in various production units (head of unit/departments)
5. Control reports supply information necessary for corrective action, so that they must be distributed to the operation units to guide their action.

Exercises

1. Describe what issues are involved in control processes.
2. Identify five principles of controlling.

Three types of managerial control will be discussed in this unit. The

3.6 Directing

Directing can be seen as leadership or command. Directing means making things happen through other people.

In educational institutions like any organization the chief executive must give directives on the daily activities of the segments. You will agree that leadership is a very crucial aspect of management because it is the process of influencing the activities and behaviour of an individual or a group in efforts geared towards goal achievement in a given situation. You can see leadership as concerned with the implementation of those policies and decisions which assist in directing the activities of an organization towards its specific goals. (Musaazi 1982). Looking at these definitions of leadership you can view directing as the interpersonal aspect of management by which subordinates are led to understand and given opportunity to contribute to the attainment of organizations objectives in an effective and efficient manner. Therefore, in directing, the manager or administrator provides an enabling environment that will bring out the subordinates' initiatives. In addition, as a good educational manager, a lot of considerations should be given to the psychology of the led (subordinates). The interest of the manager/administrator is to bring out the best in the subordinates.

3.7 Decision Making

Now, we come to the last concept in Educational Management. This concept is known as Decision Making. Decision making can be seen as a process of a series of inter-related communication events leading to the choice of position on an issue or issues. Therefore, decision making is an information aspect of management that informs on a conscious choice from among as well refined set of often competing alternatives.

The following types of decisions have been identified and discussed in an earlier lecture:

1. Routine Decision
2. Adaptive Decision
3. Innovative/Opportunity Decision
4. Person/Individual Decision
5. Organisation Decision

Can you recall the explanation given on the various types of decisions itemized above? Let us now review the steps involved in decision making process. These steps or the decision making process are:

1. An identification of the problem.
2. A critical review of the existing situation.
3. A delineation of the scope of the problem.
4. A development of ways and means of solving the problem.
5. Weighing each alternative means of solving the problem very critical together with the consequences thereof.
6. choosing the best means of solving the problems.

We should note that in Educational system or set up, there are many areas that need decision making. Some of these areas include. Inadequate lecture hall, student's unrest, instructional materials, need for laboratories, and so on.

Exercises

1. What aspect or area of the National Open University System do you think needs decision making

4.0 Conclusion

In this unit of our lecture, we have seen how educational management is relevant to the education enterprises, it is an indispensable aspect of the educational institution in a society. The various concept discussed threw

further light to the need for a positive pragmatic educational management in our schools.

5.0 Summary

In this lecture, we are exposed to the theory of educational management. The various concepts related to Educational management are identified and discussed in detail.

In this vein, educational management is said to be a social process that involves planning, organization, coordinating, controlling, unifying formally and informally organized groups, motivating and integrating ideas to achieve organizational goals. Therefore, as a process, educational management, from the foregoing, begins with planning of goals and objectives. Then strategies are developed that will help in attaining and achieving the objectives. The educational manager then has to coordinate the activities of the work force to accomplish set goals through selection, controlling, organizing, staffing, directing and decision-making.

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7.0 Tutor Marked Assignment

1. Define educational management
2. Discuss the processes of educational management.

UNIT 2

BASIC MGT./TECHNIQUES

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1.0 Introduction

In this unit you are going to learn about some techniques that will help you in project management. Network analysis methods like programme evaluation

and Review Technique are essentially to aid management in the planning and control of project involving specific start-times and end times.

Another technique is management by objective (MBO) which emphasizes participatively set goals that are tangible verifiable and measurable and this technique help the manager to make goal setting operational.

Other technique is planning programming budgeting system (PPBS) which identifies alternative course of action intended to meet the objective in an internal way. Also another similar technique but basically for education programmes in planning programming and budgeting in educational system is PPBES. This technique aids in the formulation of alternative programmes by identifying resources requirements and through that bring accountability for programme results.

2.0 Objectives

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

1. Describe the network analysis
2. Explain the different terms peculiar to it.
3. Discuss the programees evaluation review technique
4. Analyse the planning, programming, budgeting education system (PPBS) technique.
5. Describe management by objectives (MBO) in practice.

3.0 Network Analysis

Network analysis is the generic term for several project planning methods, of which the two most well known are PERT (Programme Evaluation and Review Technique) and CPM (Critical Path Method). Network are essentially a technique to aid management in the planning and control of project. In general, the network analysis can be applied advantageously to those projects involving specific star-times and end-times. Networking is particularly useful where a large number of interrelated tasks are to be carried out, any of which may occur simultaneously.

3.0.1 Key Terms Construction Network

1. Activities: It is defined as any element of the project, operating or task which consumes resources and which must be carried out to completed project.
2. Events: This represents the intersection of activities. It is found at the beginning or at end of an activity e.g. A-O-B divided by (zero)
3. Critical Path: This is the longest path or route in the entire network.
4. Slacks or Float: This is a number of period by which an activity can be delayed without affecting completion targets. It measures allowable delays in the execution of activities.

3.0.2 Rules of Construction Network

These rules are for you to abide with:

1. Activities lines never cross one another
2. Activities lines start from left to right
3. Loops are not allowed
4. Doted lines are permitted
5. Every activities must have one proceeding or “tail” events and one succeeding (subsiding) or “head” events.
6. Identify and specify all required events of the activities of the first stage.
7. Determine the precedent requirement.
8. Specify time estimate for each activity
9. Finally you determine the critical path.

3.0.3 Programme Evaluation and Review Technique (PERT)

PERT is a time-event network analysis system in which the various events is a programme or projects are identified, with the planned time for each, and are placed in a network showing the relationships of each event to other events: from the sequence of interrelated event, the path of those

events in which there is less 'slack' time in terms of planned completion is the 'critical path'.

PERT/TIME – System deal only with time

PERT/COST – Systems introduce costs of each event and are usually combined with elapsed time of each event or series of events.

3.0.4 Programme Evaluation and Review Technique (PERT)

How does Programme Evaluation and Review Technique of Planning and control that enables managers to see that they have problems in such areas as costs or on-time delivery unless they take action immediately. Budgeting and PERT have been devised in recent years resulting to better control particularly of research and development projects.

What you will realize is that PERT was developed by the special project office of the Navy and first formally applied to the planning and control of the polaris weapon system in 1958 and worked well in experiencing the successful completion of that programme. For a number of years it was so enthusiastically received by the armed services that it became virtually a required tool for major contributors and subcontractors in the armament and space industry.

Exercise

Find out if PERT is still very much in use in defence and suggest reasons for the usage.

You must realize that its network fundamentals are all still essential tools of planning and control, which is one of the reasons why we are still discussing PERT. It is used extensively in construction engineering, tooling projects today.

3.0.5 Features of PERT

PERT is a variation of milestone budgeting. It uses a time-event network analysis. This very simple example illustrates the basic nature of PERT. Each circle represents an "event" – a subsidiary plan whose completion can be measured at a given time. Pause, and take a close look at the diagram, the arrow represents an activity – the time – consuming element of a programme, the effort that must be made between events, "activity time" is the elapsed time required to accomplish an event.

In the PERT programme, you have three time estimate: “optimistic” time, an estimate of time required if everything goes exceptionally well, “most likely” time, an estimate of what the project engineer nearly believes necessary to do the job; and “pessimistic” time, and estimate based on the assumption that any logically conceivable bad luck – other than a major disaster – will be encountered. These estimates are often included in PERT because it is very difficult in many engineering and developmental projects to estimate time accurately. Also, it is believed that engineers will be willing to make a variety of estimates and will do their level best to beat the pessimistic estimate. When several estimates are made, you will usually average them with special weight given to the most likely estimate, and a single estimate is then used.

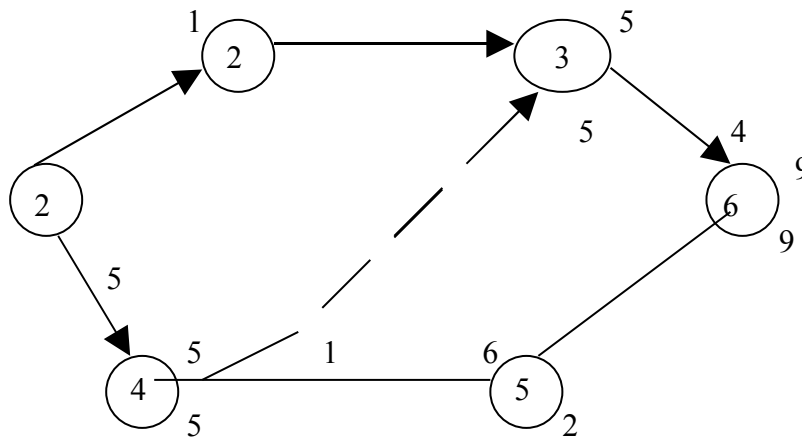


Fig. 2.1 The Critical Path

The critical path is shown by heavy line in fig. 2.1 estimate have been written in to indicate in weeks the duration of each activity, but this time there is more than one possible path to completion. In fact, there are three routes, one of which flows through the dotted arrow or “dummy” activity. Dummies usually have no time duration and do not represent actual work rather according to Locle (1968) they denote a line of dependence between activities, so that in this particular example, the start of activity 3 to 6 could not take place before completion of both events 3 and 4. The overall project duration can be calculated. This you can do by adding all the actively duration estimate from left to right. In some cases, however, there is a choice to be made, depending upon which path is followed.

In this simple network, duration estimates have been analysed to highlight the critical path, shown by the heavy lines. 1 – 4 and 3 – 6 are both critical paths. The critical path is the sequence of events which take the longest time and which involves, the least time lag. Although, the critical path has a way of changing, as the events are delayed on other parts of the programme

identifying it at all times makes possible close watching of this particular sequence of events to ensure that the total programme will be on schedule.

It is important for us to know that the typical PERT analyses may run into hundreds of thousands of events. Even though smaller PERT analyses – including the input of event accomplishment and the frequency circulation of artificial part can be done manually, it is estimated that when upward of approximately 700 events are involved, it is virtually impossible to handle the calculations without an electronic computer.

It is customary to summarize very large and complex time-event networks by sub-networks and to prepare the summarized network for top management consideration. Thus, the top management network might include some forty or fifty major events, each a summary of a number of subsidiary events. In fact it is possible for us to group to break down events so as to have a PERT network approximate to every level of management.

3.0.6 Strengths and Limitations

We are now going to consider both the limitation and strength of PERT technique. There are five strong advantages of Pert:

1. Forces managers to plan, because it is impossible to make a time-event analysis without planning and seeing how the pieces fit together.
2. It forces planning all down the line, because each subordinate manager must plan the event for which he or she is responsible.
3. It concentrates attention on crucial elements that may need correction.
4. It makes possible a kind of feed forward control, a delay will affect succeeding events, and possibly the whole project, unless the manager can somehow make up the time by shortening that of some action in the future.
5. The network system with its subsystems make possible aim of reports and pressure for action at the right spot and level in the organization structure at the right time.

Just as we derive some advantages in using PERT so also do we observe limitations. Because of the importance of activity time to its operation, it cannot be useful when a programme is nebulous and not reasonable. PERT is

also not practicable for routing planning of recurring events, such as mass production, while it could be used here, once a repetitive sequence of events is clearly involved out, so elaborate a continuing control is not required. A major disadvantage of PERT has been its emphasis on time only. While this is suitable for programmes where time is of the essence or where, as so often is the case, time and costs have a direct relationship, the tool is more useful when considerations other than time are introduced.

Exercise 2.1

1. Define critical path, events, slack
2. Explain at least 6 rules of construction network
3. What are the features of PERT
4. Discuss its weaknesses and strengths.

3.0.7 Historical Development

How relevant is the historical development of CPM technique? The historical development of CPM techniques was developed by the American Chemical Company – Du pont de Nemours. The objective was to control the work required for an overhaul of a large chemical plant. Overall cost were important, and the plans were designed to minimize them. By reducing the time of the various critical tasks i.e. tasks, whose duration directly affected the total – project evaluation – extra costs, in terms of resources of men, materials and/or machinery, had to be incurred.

3.0.8 Advantages of Network Analysis

Let us consider some of the advantages of network analysis such as:

1. It provides a means of communication between the various departments involved in a project and at the same time, between the senior managers and those who are implementing it.
2. It prescribes a discipline of thought to be applied before the projects begin, so that actions are carefully evaluated from the outset.
3. It permits careful appraisal of alternative methods of completing project, concentrating on tasks which are critical to its achievement.
4. It permits clear definitions of responsibility

5. It makes the collection of data and statistics a formal function within an organization.

3.1 Planning – Programming Budgeting System (PPBS)

You have learn about PPBS as a technique and most discussions focuses on it as a tool best used for starting the objectives of education, identifying alternative course of action intended to meet the objectives, (including a determination of costs and benefits associated with each), and ranking the various alternative choices (sometimes called “systems”) in terms of their respective costs and benefits. Then choices among the alternatives may be made on a more rational basis, through which it is possible to derive a budget based on cost of achieving objectives.

Planning and budgeting go together, although (sadly) the budget is often made up before the planning has been accomplished. Or put another way, the budgeting system seems often to be more important than the planning: a serious and often fatal flaw. Many operations are weakened by being driven by money alone and the objectives and needs are made to fit the money available. However, the identified needs should come first then the problems, then the detailed objectives and only then the programming and budgeting.

The utility of PPBS would seem to depend greatly on the validity of the original objectives chosen for further study and evaluation. Other tools may also be of assistance in the selection of methods and means.

3.2 The Concept of Planning Programming, Budgeting Education System (PPBES)

PPBES is an integrated system devised to provide reliable information with which to plan the programmes in educational institutions. It is also a device for making choices among the various ways of spending the limited funds to attain the goals of institutions. It involves a set of techniques applied for the management and evaluation of programmes and the activities of an organization through identification of objectives (Ovwigho 1991).

The PPBES as a technique aid in the formulation of alternative programmes by identifying resources requirement and brings about accountability for programme results. Educational managers attentions are focused on the purpose or objectives of education, the programmes to be implemented with

their associated costs and the potential programmed results. Therefore, PPBES involves a cycle of planning that relates to:

1. The establishment of the objectives or the goals of the institution,
2. Determination of the alternative programmes that could be used to attain these goals,
3. The determination of the financial cost of such programmes,
4. Evaluating the results of the programmes and objectives, and
5. Devising additional plans for improving the existing programmes so as to attain the revised objectives.

3.2.1 Procedure of Designing PPBES

You can, there are procedures in applying the PPBES in educational institution, you should be able to:

1. Specify the appropriate authority or body that would be responsible for the development of a given programme.
2. State clearly measurable objectives of the educational projects for which money has to be spend.
3. Determine the activities that are related to the objectives and such activities should be presented as comprehensive programmes which when implemented could foster the attainment of the overall goals of the institution.
4. Collect data that are related to the programmes already designed. Such information could be on the criteria for programme evaluation.
5. Assign monetary estimates to the various programmes on the basis of inputs and the related processes for the planning period.
6. Analyse the alternative programmes in relation to the projected cost – effectiveness. This aids in eliminating or improving some of the programme and in selecting the most beneficial programme.
7. Analyse the new programme so as to determine how effective they may be in attaining the goals of the institution.

8. Select within the available resources the alternative programmes that are most likely to enhance efficient and effective attainment of the predetermined goals.
9. Set the system or the budget into operation by applying the inputs and the processes that have been determined.
10. Evaluate constantly the programmes being complemented to see if there is need for amendment or not.
11. Review the stated objectives. This could lead to a contribution or a modification of those objectives, and as a result of the continuous evaluation.
12. Prepare alternative plans to obtain a more efficient and effective means of achieving the goals and objectives of the institution or the educational system.

You should note that the process of evaluation is an integral part of the PPBES. Such an analysis enables the managers to carefully examine the alternative course of action in relation to costs and benefits, thereby arriving at rational decisions. With the PPBES, both the quantitative tools of analysis as discussed Ovwiggo, the initiative and judgement of the planner are applied. It is also essential for adequate control to be exercised over the programmes being implemented while progress reports should be frequently made.

3.2.2 Possible Advantages and Disadvantages of Applying the PPBES to Educational Planning

The technique enables the planners to be clearer and more specific on intended institutional objectives. It enables the head of the institution to determine the most appropriate projects properly. Through this, the attention of the planner can be directed on more rewarding activities with the result that the costs of and time for the execution of the activities might be minimized (Ovwiggo 199).

The PPBES offers a good method for the presentation of data and estimate procedures. It is likely to reduce the range of areas of judgement and provide a better insight into the essential alternative programmes in the institution. Its systematic approach to the task of budgeting could form an adequate justification for educational budgets and this makes it easier for heads of institutions to defend their budgets and obtain enough funds for their institutions to embark on more projects and other that need attention.

3.2.3 Possible Advantages and Disadvantages of Applying the PPBES to Educational Planning

The specific knowledge of the PPBES approach, the associated techniques and the potential benefits to be derived from its application are not properly known by many institutional administrations. The educational programmes and policies of less developed countries are relatively unstable to establish a strong basis for projection. This is due to interference on the activities of planners which consequently affect projects.

It needs to be observed that it is difficult to prepare educational objectives into cost related terms. In view of the long processes that should be followed in applying the PPBES, this approach to budgeting is likely to waste time and energy.

Exercise 2.2

1. Define PPBES
2. Explain the procedure of designing PPBES
3. Discuss the strengths and weaknesses of PPBES.

3.3 Management by Objective (MBO)

Meaning of MBO

We are going to study another technique in this work MBO called Management By Objectives emphasizes participatively on set goals that are tangible, verifiable and measurable. It should be aware that MBO is a means of using goals to motivate people rather than to control them and that is why no introduction of basic management concepts would be complete without a discussion of MBO. It's appeal undoubtedly lies in its emphasis on converting overall organizational objectives into specific objectives for organizational units and individual members. MBO operationalises the concept of objectives by devising a process by which objectiveness cascade down through the organization.

3.3.1 Ingredients of MBO

We are going to study four ingredients common to MBO programmes. These are goal specificity, participative decision making, an explicit time period and performance feedback. The objectives in MBO should be concise statements

of expected accomplishment. It's not adequate, for example, to merely state a desire to cut costs, improve service, or increase quality, and such desires have to be converted into tangible objectives that can be measured and evaluated (Robins 1999).

It is important for you to know that the objectives of MBO are not unilaterally set by the boss and then assigned to subordinates. MBO replaces imposed goals with participatively determined goals. The superior and subordinates jointly on choosing the goals and agreement on how they will be measured must be specified. You are aware that each objective has a specific time period in which it is to be completed. Typically the time period is three months, six months and or a year. So as a manager and subordinate, you have specific objectives and stipulated time periods in which to accomplish them. We are now going to look into the final ingredient in an MBO programme which is feedback on performance. MBO seeks to give continuous feedback on progress toward goals. Ideally, this is accomplished by giving on going feedback to individual so they can monitor and correct their own actions.

3.3.2 MBO and Goals-Setting Theory

Goal-setting theory demonstrates that hard goals result in a higher level of individual performance than do easy goals, that specific hard goals results in higher level of performance than do no goals at all or the generalized goal of "do your best" and that feedback on one's performance leads to higher performance. Management By Objective directly advocate specific goals and feedback. MBO implies, rather than explicitly states that goals must be perceived as feasible. Constantly with goal setting, MBO would be most effective when the goals are difficult enough to required the person to some stretching.

The only area of disagreement between MBO and goals-setting theory relates to the issue of participation. MBO strongly advocates it, while goal setting theory demonstrates that assigning goals to subordinates frequently works just as well. However, the major benefit of participation is to induce individuals to establish more difficult goals.

3.3.3 MBO in Practice

How widely used is MBO?

You will find MBO programme in many businesses, health care, education, government and non-profit organizations, we all know that MBO's popularity should not be construed to mean that it always works, there are a number of

documented cases where MBO has been implemented but failed to meet management's expectations. This has shown us that there are basic problems underline MBO's basic components such as unrealistic expectations regarding result, lack of top-management commitment, and inability or unwillingness by management to allocate rewards based on goal accomplishment. Nevertheless, M.B.O. provides managers with the vehicle for implementing goals-setting theory.

Exercise 2.3

1. Discuss the concept of MBO
2. Analyse the ingredients of MBO
3. What are the strengths and weaknesses of MBO in practice.

4.0 Conclusion

In this unit, we have considered some techniques that are used in project management. Among these are Network Analysis methods, like programme evaluation and Review Techniques, (PERT) critical part methods which are essential to aid the management in the planning and control of a project. As we have seen, Management By Objective (MBO) emphasizes participatively set goals that are tangible, verifiable and measurable. The other techniques like Planning Programming Budgeting Education System (PPBES) have been thoroughly dealt with. To cap it all, the various application and strengths of these techniques have been established to aid your planning, controlling and implementation of educational based project assigned to you.

5.0 Summary

You have learnt in this unit the various techniques that aid managers in the project development and management. You have learnt about Network analysis which is the generic term for several project planning method such as Programme Evaluation and Review Techniques (PERT) and Critical Path Method (CPM). Both of the techniques as you have learnt are time-event network analysis. The advantages and limitations of these techniques have been explained. Also, in this unit you have learnt about Planning Programming Budgeting Evaluation System (PPBES). The techniques and in the formulation of alternative programmes that will bring about the achievement of objectives in project planning and execution. You have learnt in this lesson too about other technique management by objectives (M.B.O.), it directly advocate participatively onset goals.

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7.0 Tutor-marked Assignment

Analyse the various techniques in project management.

UNIT 3

EDUCATIONAL MANAGEMENT AND PROJECT

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PROJECT MANAGEMENT

1.0 INTRODUCTION

In this unit you will be exposed to the definition of project, project management, Aspects of management, management requirements and management techniques. The unit will also acquaint you with the functional

organizational theory of management and project management in the Nigerian society.

2.0 OBJECTIVES

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

- (i) define project and project management
- (ii) discuss five characteristics of a management tam
- (iii) highlighting and discuss three aspects of project management
- (iv) state the meaning organization
- (v) discuss the issue of project management in Nigeria

3.1 DEFINITION OF PROJECT MANAGEMENT

For us to understand vividly the meaning of project management, we shall first of all state what project is. Thus, for our own purpose, a project is embracing activity that involves investment in a capital set up. The project usually has specific location when its activities are carried out and it also has a tie limit within which the activities should be completed.

From the above definition, the following can be the examples of a project the building of a house, a dam, a bridge, a hospital or an airport.

Therefore, a project is any enterprise that can be identified in relation to its specific location and the function that is being undertaken.

Having established the meaning of project let is now define project management. Project management is a kind of system that depends on the skills or different persons form different sectors of the system (e.g. ministries and departments) in order to design and carry out specific projects. The skills requirements brought together from various ministries and departments works as task force as an adhoc set up.

3.2 CHARACTERISTICS OF PROJECT MANAGEMENT TEAMS

In an attempt to understand further the nature of project management you should acquaint yourself with the characteristics are a derivation from the definition given above, though.

Thus, the following characteristic or elements are identifiable in project management a system.

- i. groups are temporary; they disband at the end of the project.
- ii. the members go back to their respective places of work within the organization or civil service.
- iii. the organizational structure is called “matrix organization”.
- iv. the set up provides for flexibility in problem solving.
- v. it permits and gives opportunities to specialized skills and resources which are drawn from across the civil service (Federal, State, and Local Government Area). These specialized skilled in the skilled labour constitutes a problem solving team and use their resources in the design, and implementation of the project.

From the above highlighted characteristics of project management, we can adduce that the management team constitute of:

- i. skilled human resources,
- ii. materials,
- iii. funds.

Characteristics of a management team management is a team work. Pause, and recollect the processes of management and you will discover that management involves putting the right people in the right places.

So a management team must possess the ability to:

1. set the goals and objectives
2. diagnose problems of organization
3. propose alternative solution select the best alternative competencies different competencies and skills.

3.3 ASPECT OF PROJECT MANAGEMENT

Apart from the characteristics and elements of project management, there is also the aspects of project management which needs to be explicated. This is expedient in order to have an overall overview of project management. The overview is a kind of evaluation in relation to the project being carried out.

The evaluation is necessary so as to:

- i. provide accountability of resource funds and materials

- ii. to determine that went well and why, what went poorly and why and how future efforts can improve on the experience gained.

Evaluation is only successful when it is part and parcel of the project design and operation.

We can also identify forms of project evaluation, these include.

i. **On-going or built-in evaluation**

This gives the advantage of detecting undesirable deviations of plans, analyzing and correcting actions it also enable the managers to determine the success of projects and effectiveness of practices can subsequently be passed to other areas/parts of the project. However, we should not confuse project monitoring with evaluation. This is because information received form monitoring permits project progress to be measured against some planned scale of accomplishment.

On the other hand, evaluation draws from monitoring to establish why things went the way they did and what can be done to improve.

ii. **Special evaluation:**

This is non-recurring evaluation (with the exception of audit) which is taken during the implementation of a project. People that are external to the project normally undertake this type of evaluation. There are two areas that are the concern of this type of evaluation:

- (a) specified or operational area
- (b) the entire project

Also, this kind of evaluation provides to:

- (a) the extent to which the project has met its specific objectives
- (b) whether there are better or more effective ways of pursuing the objectives?

iii. **Ex-post evaluation**

It is carried out after the completion of the project it provides information which will allow the project cycle to closed. From the

information gathered, the managers plan and implement other projects and programmers more effectively.

3.3.1 ORGANIZATIONAL ASPECT OF PROJECT MANAGEMENT

You will understand that the choice of an organization to implement a project, development of guidelines and procedures for executing it are usually critical factors to consider. Even when your projects are technically well prepared they are not likely to run smoothly when insufficient attention has been given to management and organization. These aspects should be analyzed early in the project cycle at least at the time of project formulation. This will make it possible for alternative arrangements to be looked into and allow preparatory steps to be carried out, so that the project will not be delayed.

In the process questions to be answer include the followings:

- (a) Will the project be implemented by an existing government agency/government department?
- (b) Will it be implemented by a new agency?
- (c) Will non-government agent (Contractors, voluntary organizations) implement it ?
- (d) What role will be the role of local people and groups in the project area?
- (e) What role can local government organization and official play in implementing and supporting the projects.

Therefore, organization is important in order to produce desired results and identify individual responsibilities, privileges and authority. The organization should thus have:

1. Clear-cut requirements for the provision project objectives.
2. mode operation,
3. human and material resources
4. feedback techniques

After this junction we shall point out the steps involved in organizing for project implementation:

1. Establish of a project team.
2. Appointment of a project manager and provision of human and material resources.
3. Project manager should work throughout the life of the project.

What is organizational structure? An organizational structure defines how job tasks are formally divided, grouped and coordinated. There are six key elements that as a manager you need to address when designing your organization structure as it redacted to management of education.

These are: work specialization, department alisation, chain of command, span of control, centralization and decentralization, and formalization. All these base on the following key questions – To what degree are task subdivided into separate jobs?

On what basis will jobs be group together? To whom do individuals and groups report? How many individuals can a manager efficiency and effectively directs? Where does decision making authority lie?

To what degree will there be rules and regulations to direct employees and managers?

3.3.2 PROJECT MANAGEMENT REQUIREMENTS (Behavioural Aspect)

The project management requirements include the following

- i. Everyone concerned must know what the project is al about.
- ii. Project manager should keep staff members informed and aware of project objectives, proposed inputs and outputs and what their role is in making the project work.
- iii. You should continually define nature of the problem and how this can be solved.
- iv. Members of the project team/committee as the need arises should be assigned to task forces with areas of investigation or administrative action.
- v. As a project manager, your responsibility includes the establishment of relations with experts in research, administration, technical fields and other areas as appropriate.

- vi. As a project manager you should be involved in project formulation as well as its implementation.

The above six points of consideration sum up the behavioural aspect of project management requirements.

3.3.2 ORGANIZATIONAL PROCESS ASPECT OF PROJECT MANAGEMENT

By organization process aspects of project management we mean the choice of an organization to implement the project through certain guidelines and procedures for executing it. You should be aware that for a project to run smoothly, there is a need to be technically prepared as well as give sufficient attention to management and organization.

The first step is to analyze early in the project cycle i.e. during project formulation. The advantage of this is that it will provide for alternative arrangements and also allow for preparatory steps to be taken, so that the project will not be delayed.

EXERCISES 3.1

1. State three aspects of project management you have noticed in a project execution in your L.G.A
2. Imagine that you are a member of a task force to plan, design and implement a project, how will you coordinate your activities.

3.4 THE FUNCTIONAL ORGANIZATION OF GOVERNMENT

We can see that an organizational structure defines how job tasks are formally divided, grouped and coordinated. The following key questions must be put into consideration when you are to assign organizational structure vis-à-vis education management. These are: To what degree are the tasks subdivided into separate jobs? On what basis will jobs be grouped together? To whom do individuals and groups report? How many individuals can a manager efficiently and effectively direct? To what degree will there be rules and regulations to direct employees and managers?

However, the basic organization of government is by ministries and departments. The ministries themselves are either "line ministries" which combine the formulation of policy in a functional area with its execution, as in health or education institutions.

There are also “service ministries” that render services to other ministries as work or justice. We also have “coordinating ministries” that work in conjunction with others to achieve results such as the Ministry of Economic Development Planning. In the same way, “controlling ministries” Like the ministry of finance or Establishment species and assist the work of other ministries.

However, whatever the various roles of the ministries are together they constitute the functional organization of government. That is they are based on their portfolio of responsibility and the skill specialization of their staff or officials.

While employees of similar skills and occupational specialization are grouped together in functional units and we assume there will be cooperation among the groups and optimum deployment of resources to meet goals and largest.

You will understand that there are advantages in organizing functional organizations but there are certain weakness particularly in:

1. Responding to changing and complex situations
2. Emphasizing functional elements at the expenses of the whole civil service/organization.
3. Discovering collateral relationships
4. intribiting coordination

It is good to know that for our public bureaucracies to foster development, we must make efforts to shed the negative characteristics identified. A result – oriented service should focus priority attention on development projects as well as long-term continuity tasks.

Nevertheless, the control and implementation of education policies and programs in Nigeria are under the responsibilities of both federal and state ministries of education as well as local government school board.

3.4.1 THE FEDERAL MINISTRY OF EDUCATION

The Federal minister of Education is the political and overhead of the Federal Ministry of Education as it is applicable to other ministries. It is responsible for the control direction and promotion of education at the federal level with his state ministers who is to assist in his responsibilities.

Under them (minister and states minister) is the permanent secretary who is chief executive and administrative head of the ministry. He is concerned with the administration and control of the ministry as well as the coordinating of its various activities and general direction of policy.

The federal ministry of education is divided into four divisions each headed by Director. These divisions are the division of Higher education, the inspectorate division, the division for Educational services and the division for Educational Administration and Policy.

The directors, which headed these Divisions, are all responsible to the permanent secretary. All these divisions have units headed by Assistant Directors.

What are the basic function of various divisions in the federal ministry of education?

The Federal Ministry of Education is majorly responsible for:

- (i) The determination of National policy on education.
- (ii) Co-ordinate of Education practice in Nigeria.
- (ii) Advisory services in respect to all levels of education below university.
- (iv) Planning and research on National Scale.
- (v) Co-ordinate of non-formal education including adult education, vocational improvement.
- (vi) Co-ordinate of education services
- (vii) International cooperation in education
- (viii) Co-ordination of national school examination and relevant teacher examination, test, and evaluation.
- (ix) establishment of a central registry for teachers.

EXERCISE 3.2

Highlight the functions of four divisions in the federal ministry of education

3.4.2 STAFF MINISTRIES OF EDUCATION

In Nigeria, you must understand that organization of state ministries varies from one state to another but a general types can easily be recognized state ministry of education is headed by a commissioner who like the federal minister of education is the political and over all head. Also below him is the permanent secretary who is similarly the chief executive and administrative head of the state ministry like federal ministry.

The permanent secretary is assisted by a deputy secretary.

Each state ministries of education is subdivided into sections such as finance and establishment, Administrative division, planning division, primary, secondary, Technical and Teacher Education. These divisions are headed by chief inspectors or Assistance secretaries. The divisions are further division into units and headed by either inspector or senior education officers

Therefore, you must know that the various divisions have certain responsibilities to perform but generally speaking the state ministries of education perform the following functions.

1. Policy, control and administration of education of primary and secondary education of primary and secondary education at state levels.
2. Planning, research and development of education at state level.
3. Provision of inspectorate service to improve and maintain standards.
4. Co-ordination of the activities of school Board and /or Local Education Authority.
5. Examinations, Particularly certification of primarily school teachers, testing and evaluation.
6. Establishment of state registry for teachers.

EXERCISE 3.3

Identify the functions of various divisions and departments in the state

3.4.3 THE LOCAL GOVERNMENT SCHOOL BOARD

We should also understand that, in some states of the federation, both secondary and primary schools come under the control of the local schools board.

- (i) To appoint, confirm appointments, promote, transfer and discipline teachers in accordance with the ministry of Education regulations.
- (ii) To keep confidential reports on teacher sinter its authority.
- (iii) To maintain and establish new schools,
- (iv) To ensure that all premises of schools under its authority conform with standards.
- (v) To Propose and submit estimate of needs of its area.
- (vi) To conduct or assist in the conduct of the research.
- (vii) To cater for the transportation of pupils to and from school.
- (viii) To fix salaries and other remunerations subject to the regulations of the ministry of education.
- (ix) To arrange for the inspection of schools under its authority.

EXERCISE 3.4

1. To what extent do local school board perform their basic function, in your area?
2. In what ways can organization of government enhance project management?

3.5 USING PROJECT MANAGEMENT TECHNIQUE

As we all know there are environmental conditions which may compel the use of project management techniques these are many and varied. And there are no simple rules to follow, several general criteria can be utilized or applied.

3.5.1 MAGNITUDE OF THE EFFORT

Project management is appropriate for adhoc undertakings concerned with a simple specific and product e.g.

Project for a new technical school in one local government area (project would include local authorities educators, social workers, architects, surveyors, engineers, builders, educators, educational equipment suppliers, financial analyst and cost accounts.

3.5.2 UNFAMILIARITY

An undertaking is not a project unless it is some thing out of the ordinary, different from a normal routing affairs within our carious local government departments ministries (e.g. resettlement or irrigation system construction)

3.5.3 INTERRELATEDNESS

Another decisive criterion is the degree of independent between the project task and effort calls for many functionally separated activities to be pulled together.

EXERCISE 3.5

1. Itemize three project management techniques you have noticed in your organization
2. Which of these techniques is better and why?

3.6 PROJECT MANAGEMENT IN NIGERIA

You will discover that examples of faulty project management and execution are formed everywhere. Uncompleted government buildings due to lack of funds, new schools without desks or teacher, hospitals and health canters without drug abound. These lapses occur because of faulty project planning and management. Success in project implementation depends mainly on;

- (a) good management and organization
- (b) close alignment between projects particular requirements and facilities provided at the local level

You see that here in Nigeria, sometime doing planning people get pre-occupied with technical, economical and financially feasibility, considerations relative to projects, s little attention is paid to the management and institutional factors. Which mean a lot to the to a balance and full-bodies assessment.

EXERCISE 1.6

Analyze the major projects embarked upon in your area by government agency in relation to the education management?

4.0 CONCLUSION

Having provided you with adequate information on project management in this unit, you will notice that the issue has been received adequate attention by government and specialist. This mean that for long time the area ha been the preserve of technocrats, it is only recently that public administrators, educators and managers have delve into it.

The concern in this area arouse because of the need to allocate available resources in order to meet societal demand.

This unit ha provided us with the essential elements of and nature of project management

5.0 SUMMARY

In this unit we have define management, characteristics of project management, aspects of project management and project management in Nigeria. The application of this theory to the Nigeria society in terms of it practicability in relation to the functional organization.

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7.0 TUTOR MARKED ASSESSMENT

Provide answers to the following

1. Define project management
2. Discuss three aspects of project management

UNIT 4

National Development Plans and Project in Education

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1.0 Introduction

In this unit we shall be studying about development planning and education. We can describe development planning as a conscious effort on the part of the government to influence, direct and in some cases even control changes in the principal economic variables (i.e. consumption, investment, savings, exports and imports) of a nation over a period of time in order to achieve a pre-determined set of objectives. According to Anyanwu, Oyefusi and Dimowo (1997), a development plan is a document by the government containing a review of government policies, the current national economic conditions, a macro economic projection of the economy, proposed public expenditures, likely development in the private sector of time etc.

2.0 Objectives

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

1. List the different plans with dates
2. Explain each development plan
3. Analyze the educational projects embarked upon during those periods
4. Discuss briefly the features of the rolling plans
5. Advance reasons for the weaknesses in each plan

3.0 Type of Development Plans

We can classify development plan into three broad categories, short-range plan, medium-range plans and perspective or long-range plans. Let us discuss these plans one after the other.

3.0.1 National Development Planning Before Independence

In 1946, Nigeria introduced development plans and between 1946 – 1960, if you still remember, the emphasis was on direct delivery of welfare. Then the exercise took the form of compilation of shopping lists of the capital requirement of government department and agencies. The development programme at this period did not encompass all economic activities in the country; rather it was pre-occupied with providing necessary facilities for effective colonial administration. They include the provision of transportation system from the interior to the coast clinics, schools, water and electricity. There is no doubt that the 1946 – 1956 development programme neglected the Nigerian grassroots both at the level of decision making and implementation. Can you remember any important commission, which affected educational development at independence?

3.0.2 National Development Plans After Independence

After the attainment of independence, the emphasis shifted from welfare delivery to economic growth. Perhaps, this was influenced by the belief that welfare and amenities can be augmented through increased economic growth. There were four national development plans between 1962 – 1985 and a 3-year rolling plan from 1990-1998.

3.0.3 First Development Plan (1962 – 1968)

The first development plan focused on economic development. Decisions on the use of resources to enhance production and economic profitability marked the supreme purpose of this plan. It envisaged capital expenditure of ₦2.2 billion. So much emphasis was placed on economic growth. Social and regional development received only 24.4% of the planned expenditure, while the economic sector was allocated 67.8%.

Exercise 4.1

What are the elements of Ashby report?

The Ashby commission was put in place in 1960 to look into education at the post school certificate and higher education level. The Ashby report formed the pillar upon which the education development in Nigeria's first development plan was built. For example, the recommendations included: the establishment of an examination body, the sixth form, the appointment of external examiners by all Nigerian Universities who would certify the quality of work done by the students, the establishment of ABU, Zaria and University of Lagos, Advanced Teacher Training Colleges among others.

It is important to remember the political instability of the following year. Due to the unsettled conditions, on-going educational projects were stopped abruptly as donor countries terminated or postponed contracts. This situation led to the termination of USAID-Sponsored Teacher Education project in the north, the closure of University of Nigeria, Nsukka, the UNESCO-Sponsored Advanced Teachers College at Owerri and the Federal Advanced Teachers Training College in Lagos.

Some of you might not have been born then but for others, they will realize that as the political conditions became increasingly strained they caused significant distortions in the original allocations of development plans, which are generally at the expense of such services as education.

3.0.4 Second Development Plan (1970 – 1974)

The second development plan was launched after the civil war and it focused on reconciliation, reconstruction, and rehabilitation. It aimed at creating a just and egalitarian society and reducing inequality in the distribution of income and wealth. It sought to promote national autonomy, a social justice. The envisaged capital expenditure was ₦3.2 billion. As at 1973 – 1974 enrolment in primary school doubled. However, average growth of educational investment was 6.8% during this Plan period, recently a drop in equality of education.

The phase of rehabilitation and reconstruction began with the end of the civil war in 1970. It marked the beginning of a new decade, which was significant for a quick recovery from the setback of the war. Intensive federal government activities started leading to considerable expansion at all levels and all types of educational institutions. This period coincided with the beginning of the Second National Development Plan (1970 – 1974), the period we are examining. In this period and for the very first time, the national objectives were expressly stated as establishing:

1. A united, strong and self-reliant nation
2. A great and dynamic economy
3. A just and egalitarian society
4. a land of bright and full opportunities for all citizens nd
5. A free and democratic nation.

These objectives re outcomes of the 1969 curriculum conference, which sees education as a social service and an educated person as production investment. So, education became a priority-concern of the government. The Federal Military Government took education from the concurrent list and controlled both its establishment and funding fully. They set up the National University Commission (NUC) to coordinate University activities and funding.

3.0.4.1 Third Development Plan (1975 – 1980)

What type of development will you envisage for this period of oil boom?

The revenue from oil was used to provide such infrastructures and facilities as road networks,, electricity, water supply, health services, low cost housing, among others. There was so much revenue available that direct delivery of welfare services was made possible more than ever before. It will be important for you to note that at this time, Nigerian foreign policy was geared toward providing aid to the other developing countries. This plan did not encourage private investment and its projects were not grass root –oriented. In fact, the level of agriculture and industrial productivity dropped significantly as a result of excessive dependence on contract and other benefits. This plan had an original expenditure estimate of =N=30 billion later raised to =N=53.6 billion.

3.0.4.2 Third National Development Plan (1975 – 1980)

The Third National Development Plan (1975 – 1980) had the following objectives for the educational programme:

1. To expand facilities for education aimed at equalizing individual access to education throughout the country.
2. To reform the content of general education to make it more responsive to the socio-economic needs of the country.
3. To consolidate and develop the nation's system of higher education in response to the economy's manpower needs.
4. To streamline and strengthen the machinery for educational development in the country.
5. To rationalize the financing of education with a view to making the educational system more adequate and efficient.
6. To make an impact in the area of technological education so as to meet the growing needs of the economy.

Exercise 4.2

Do you think that the above objectives have been achieved? Discuss your answer with extensive illustrations and exemplification.

The Third National development Plan, in particular, was launched against the background of buoyant financial resources, which raised the expectation of the generality of the people. The following educational development programme were notable during the period.

1. The development of the concept of Federal Government Unity Schools.
2. The establishment of the National Youth Service Corp in 1973.
3. The establishment in 1975 of seven additional Universities and the take over of the existing regional ones to make thirteen.
4. The introduction of Universal Primary Education
5. The publication of a National Policy on Education in 1977

Given the experience of the Civil War, between 1967 and 1970, the overriding emphasis of the educational programme in the 1970's was unity, national integration and increased access to education.

3.0.5 Third Fourth Development Plan (1981 – 1985)

The envisaged expenditure under this plan was ₦85 billion. The expenditure with the Fourth National Development Plan has pointed to the need for a change in the strategy for development planning in Nigeria. Targets of the plan were hardly realized. Perhaps this was due to the decline in the economic fortune of the country and change in regime that occurred in December, 1983. For instance the GDP growth rate expected during this period declined from 4.0% per annum to 2.9% per annum. The economy was also saddled with inflation, unemployment and rising external debt. Government projects were abandoned and living standard of Nigerians started to decline.

Given the general experience of very wide divergence between the aspirations of past fixed medium term development plans and actual achievement, it became clear that it was appropriate to put in place development plans that are subject to periodic reviews. As a result of this realization, the military administration resorted to the instrument of three year rolling plans and 15-20 years perspective planning.

You will recall that in this period, the civilian government was in control until 31st December, 1983. During the civilian rule there was excessive politicization of educational policies and programme. The following are some of the features as reported by Tamuno (1988). He characterized the educational development thus:

1. Deliberate disregard for the National Educational Policy, which was replaced by the educational programme of the ruling political parties at Federal and State levels.
2. An unprecedented explosion of the educational system within so short a period from primary to university level including proliferation or private Universities.

As soon as the military took over power in 1983, there was depolarization of educational systems in which some harsh measures were taken to control the educational growth and to share in the burden of funding with other shareholders, voluntary agencies and private sectors.

Four out of seven federal universities of technology were merged with the older ones. By the end of 1984, the number of universities had gone down from 32 in 1983 to 22 out of which 16 were federal and 6 were state universities.

During this period also, there was a massive aid to primary education, particularly in the area of teachers' salaries. Accounts at Federal, State and Local Government levels were established.

Exercise 4.3

Which regime, civilian or military, will you consider better in terms of educational development between 1981 – 1985.

3.0.6 Rolling Plans (1990 – 1998)

The three year rolling plans were from 1990 – 1998 in the following manner:

1990 - 1992
1991 - 1993
1992 - 1994
1993 - 1995
1994 - 1996
1995 - 1997 and
1996 - 1998

The rolling plan had its root in the Structural Adjustment Programme. Some of the aims of the Rolling Plan were to discourage the bureaucratic controls and place greater emphasis on market prices in achieving greater efficiency in the allocation and distribution of scarce resources. One of the main purposes was to ensure continuity in the implementation of a perspective plan, objective/project. And under this arrangement, the project that was not fulfilled during the duration of a plan for example was rolled into another period.

3.0.6.1 Features of the Rolling Plans

The features of the rolling plans including the fact that:

1. The Rolling Plans was to take its bearing from the Structural Adjustment Programme, thus discouraging bureaucratic control and placing greater emphasis on market prices in achieving greater efficiency in the allocation and distribution of scarce resources.

2. Enlargement of the role of the private sector in the operation of economy.
3. In place of complex administrative control, Government assumed a regulatory role to promote a dynamic economic and to ensure social equity and proper development of a virile Nigerian economy in which individuals and groups have equal opportunities to develop their talents as well as improve their welfare.
4. The rolling plans were expected to be implemented under tight economic conditions. Government is expected to accord the highest priority to the rehabilitation and maintenance of existing assets especially in the areas of infrastructures and social services.
5. Cost recovery measures and subsidy reduction were to be pursued in the provision of utilities and social services, so the funds can be raised to maintain and expand essential facilities to enable more people benefit from such services.
6. The private sector is expected to play a dominant role in the economy particularly in agricultural, manufacturing, transport and other service industry.
7. Individual communities and corporate bodies were expected to undertake community sponsored development projects to augment government effort; and
8. Monopoly powers were to be checked to the advantage of consumers. Large monopolistic companies were to be regulated to improve competition, efficiency of operations and private sector participation (first National Rolling Plan 1990 – 1992, Vol. 1, 19-21).

Exercise 4.4.

What aspects of educational development are yet to be incorporated in the Rolling Plans?

3.1 Main shortcomings of National Development Plan

The shortcomings of National Development Plans from the forgoing would include the fact that:

1. Nigerian Development Planning was characterized by significant revisions. For example, as indicated previously, the Third Plan (1975 – 1980) had an original estimate expenditure of =N=30 billion which was later revised to =N=53.6 billion;
2. Public investment was promoted at the expense of private investment. For instance, public investment expenditure increased from =N=246 million in 1962-1968 to =N=818 million in 1970-1974, =N=8.66 billion in 1975-1980 and =N=70.5 billion in 1981- 1985 (Antony and Douglas 1981:143)
3. The plan was most often distorted by unplanned expenditure. Moreover, plan distortion was also attributable to inadequate project preparation, shortage of executive capacity, mismanagement and lack of accountability;
4. Government often failed to keep to schedules and targets because of internal and external pressure;
5. The development plans lack proper coordination and were full of inconsistencies and discontinuities. The Nigerian experience since the mid-seventies demonstrates the fragility of an economy that relies on one sector.

3.2 The Perspective Planning and Rolling Plans

The decision to adopt the three-year rolling plan and the 15-20 year perspective planning model was informed by the prevailing instability of the international oil market, the external debt burden and the vagaries of an unstable exchange rate regime which made it very difficult to forecast resources over a long period (First National Plan 1990-1992 Vol. 1, 19).

There was also the need to harmonize the plan and the budget as instruments of economy management and to create a more flexible framework than the fixed term plans for tackling major problems that confront the economy.

There was in addition, the compelling consideration of the need to take stock of on going projects, assess their viability and complete as many as possible within the constraints of limited resources.

Exercise 4.5

How will you address the shortcomings of National Development Plans?.

4.0 Conclusions

Planning occupies a key place in economic activities. It is important to plan because our resources are limited while our needs as a nation are unlimited. It is through planning that sectors of economy get their various allocations. Education therefore competes for these scarce resources with other sectors like, health, agriculture, housing, transportation, etc. Throughout the different national development plans, education has been focused on even though a greater allocation has always been expected. I believe that the government of the day can allocate more resources to education in the sense that national development has its root in education.

5.0 Summary

In this unit we have dealt with the National Development Plans and educational projects in each plan period: The Colonial Welfare Plans 1954-1956, The First National Development Plan 1962-1968, The Second National Development Plan 1970 – 1974, The Third National Development Plan 1975-1980, The Fourth National Development Plan 1981-1985 and Three-Year Rolling Plans of 1990-1992, 1991-1993, 1992-1994, 1993-1995, 1994-1996, 1995-1997 and 1996-1998. The impact of oil boom on the implementation of each plan as well as the change in the political climate from civilian to military regimes have been critical factors in the implementation process. Finally, the shortcomings of the implementations of the plans have been described, some of which are:

1. Significant revision during implementation;
2. Promotion of public investment at the expense of private investment;
3. Plans distortion by unplanned expenditures;
4. Lack of adherence to schedules and targets; and
5. Plans lacking consistency and continuity

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7.0 Tutor-marked Assignments

1. What are the main elements of the Ashby Report
2. Implementation is the bane of Educational Development Plans in Nigeria. Discuss.

MODULE 2

UNIT 1

THE NATURE AND SCOPE OF A PROJECT

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1.0 INTRODUCTION

In this unit we will discuss the general overview of projects. If you have gone through the unit outline, you will note that projects are schemes which require a lot of planning, execution, and post executional monitoring. Projects are the cutting edges of development. Yet in most countries, the capacity to prepare, and analyse projects lags. Managers even those in key planning positions, continually under-estimate the time and effort needed to prepare suitable projects. Often projects are the first, concrete portion of a larger, less

precisely identified programme the whole programme could, of course be subjected to analysis as a single project, but by and large, it is better to keep projects rather small, so as to make it manageable. That is, close to a minimum size for easier execution. Unless projects are carefully prepared in substantial detail, inefficient or even wasteful expenditure of money is almost sure to result. This will be tragic loss in capital short nations.

2.0 OBJECTIVES

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

1. Define a project.
2. Examine the nature of the project.
3. Discuss the scope of the project.
4. Describe the project management.

3.1 CONCEPTUALIZATION OF A PROJECT

A project is seen primarily as a planning process which uses one or more scarce resources during a specific time for the purpose of producing some economic returns or output at a later date.

To Bieman and Smidth (1970) A project is a capital investment to develop facilities to provide goods and services.

Little and Mirrless (1980) see a project as any scheme or part of a scheme, for investing resources which can reasonable be analyzed and evaluated as an According to UNIDO Manual (1972) involves the utilization in the near future of scarce or at least limited resources in the hope of obtaining in return some benefits over a long period.

Also, Kayode (1979) stated that the important aspect of a project is not whether it is action or physical goods / works – oriented, but rather the investment in value and the benefits expected.

We can therefore define a project as a task or series of tasks that has a definable beginning and end, and requires the expenditure of one or more resources that must be completed in order to achieve the objective for which it is instituted. It can be seen as an act of capital investment using (scarce) resources to develop facilities for the provision of good and services. In other words, we are talking about the whole complex of activities involved in using resources to gain benefits about all we can say generally about a project is that it is an activity on which we will spend money in expectation of returns, and which logically seems to lend itself to planning, financing, and implementation as a unit. It is specific activity with a specific starting point, and a specific ending point intended to accomplish a specific boundary – and say, “this is the project”. Normally, it is measurable both in its major costs and returns, have some clearly defined time space and frequency of activities.

Some times, people become concerned that they cannot define a “project”. Don’t be in practice, the definition works itself out.

3.2 WHAT BRINGS ABOUT PROJECTS?

A project may be conceived by existing departments or ministries, or they may develop out of the process of preparing socio economic plans at the national, state and local government levels. They may also be identified by interest groups in authority. By and large, projects arise out of the desire to satisfy some societal felt need. You may want to undertake a project based on personal interest, its relevance to your field of interest, or to improve an already existing scheme or programme in your geographical or educational sphere. However, the mere fact that the potential beneficiaries of a proposed project are able to form an enthusiastic lobby for the project is in no sense a justification for its being undertaken. Rather, this fact should be almost irrelevant in cases where most of the costs are borne by the society at large.

3.3 NATURE OF PROJECTS

Projects constitute the centre piece of development planning, where policies are formulated, and a number of these policies are in turn translated into specific programme of actions. The programmes are further concretized into a number of projects. There are several aspects of project preparation that should be carefully considered in any project, though not all of them are equally applicable to all projects. We should however consider them. They include:

3.3.1 The Technical Aspects

Here, we are concerned with the inputs and outputs of real goods and services. It is extremely important, and the project framework must be tightly enough defined to permit the technical analysis to be precise and thorough.

3.3.2 Managerial and Administrative Aspects

Management and administration are very difficult to evaluate, but they may be the keys to the success or failure of a project. You must, therefore, examine your ability to administer the concerned activity, and also the ability to adopt, and manage new and upcoming, unforeseen issues. When we consider the managerial and administrative aspects of a project, not only are we concerned that eventually managerial and administrative problems will be over come, out we must also make realistic assessment of how fast they will be overcome, since the contribution of an investment of how fast they will be

overcome, since the contribution of an investment to creating new wealth is very sensitive to implementation.

3.3.3 Organizational Aspects

In this regard, we are concerned about the relationship of the project administration to other parts of government. Are the authority and responsibility clearly linked? Are there ample provisions to report up to date information about how the project is progressing? Without proper provision of these organizational arrangements, even the best administrator, or manager is frustrated.

3.3.4 Commercial Aspect

This deals primarily with the revenue consideration of the project. It includes the arrangements for the supply of funds for the input necessary to 'operate' the project, and whether the project can become financially viable.

3.3.5 Economic Aspect

Here, we consider the ability of the project to contribute significantly to the development of the economy as a whole, and if the contribution of the project is likely to be great enough to justify the use of the resources needed

Exercises:1.1

- (1) Why do we consider different definitions of a project?
- (2) List the different aspects of a project and explain any two of them?

3.4 SCOPE OF PROJECTS

3.4.1 Project Cycle

The different steps involved in evaluating any project from its inception to conclusion is called the project cycle. As its name implies, it is a continuous process which runs through five main or key point beginning with identification of the project, and ending with its monitoring and evaluation even after implementation. In the project pipeline, a lot of preparation is essential which covers all the steps necessary to bring the project to an established, feasible state. It is then ready for appraisal, where attempts at providing information and analysing the project from vantage points are done. We begin to consider the administrative, technical and marketing

feasibility, as well as the financial implication of the project. Usually, a level of professionalism is employed to this end. After this, we usually set out basic programme, allocate tasks and resources, and set down the operational form in which functions should be carried out, before implementing our projects. Subsequent management is done how in hand with, and based on the feed backs we get from time to time. .

3.4.2 Project Appraisals

All projects are not equally important in the same field, especially where scarce resources are rife to this end, the amounts of time we spend in trying to evaluate different projects vary considerable. This is called appraisal and can be done in stages. Each successive stage should boast of a greater degree of accuracy in the data we use. At the end of each stage, it falls on us to make the decision to either continue with, or abandon the project without further analysis. To make such a meaningful appraisal requires an assessment of each of the financial economic and social aspect of the project. Usually, a project goes through stages of appraisals before it receives final approval

3.4.3 Pre-Feasibility and Feasibility Study

In pre feasibility studies, we refer to the first attempt to examine the overall potential of the project. In this phase, the measures of variables which have been clearly biased in one direction are more valuable than mean estimates of variables which are only known with significant uncertainty. Therefore, in pre-feasibility studies, we pay some attention to providing estimates that tend to bias downward the benefits of the project, while providing an upward biased estimate of the costs. Wherever possible, the pre-feasibility studies should utilize previous studies on the issues in question, and a review of the specialized trade and technical journals for information which would be relevant to the appraisal of the project. After completing all the modules of the pre-feasibility study, a sensitivity analysis must be performed on the project to identify the key variables which determine its outcome. The feasibility stage improves the accuracy of the measures of these variables. Before this, however, bear it in mind that the project must have acceptable indications of the potential for success. It is at this stage that we make the most important decision of whether to continue with, or discard the project. After this stage it should take the boldest persons to admit and stop the project especially if sizeable resources have been committed to it.

3.4.4 Implementation Project

We can define this simply as carrying the project into effect. Project implementation refers to the execution of the project activities as contained in the laid out plans. It occurs after the final appraisal and approval, and is the tangible evidence collating all standards and objectives, resources, inter organizational communication and enforcement activities and the disposition of the executors or implementors of the project. In implementation you usually discover, or see graphically, the interplay between the elements we just mentioned, and the economic, social and political conditions surrounding your environment. The ultimate achievement here is performance, which (initially affects all the other aspects of a project).

We can represent this diagrammatically

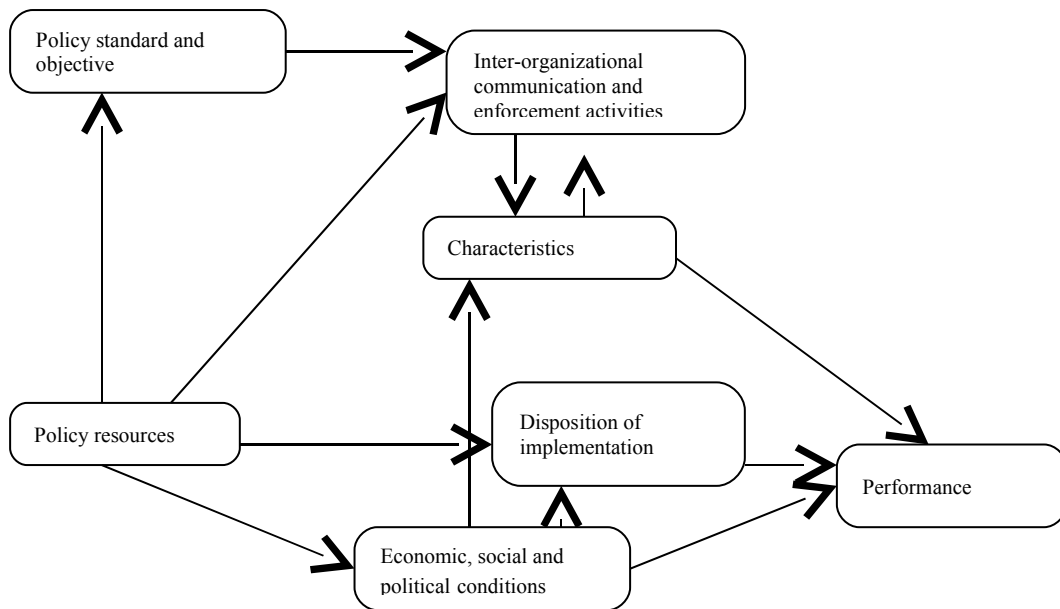


Fig: 5.1 A model of policy Implementations process.

Successes in project implementation depends on good management organization and a close alignment between a projects particular requirements.

3,4,5 Project Evaluation and provided Facilities

Here we are dealing with the systematic examination or analysis of the various aspects of proposed investment in order to determine its viability. It goals are to enable the decision making reaches an informed rational and objective choice in resource allocation at the early stages of the project, and to compare costs and benefits in a meaningful and consistent way, in order to derive conclusions. We must make a proper project identification cost and

benefits potential, and these costs must be assigned a value reflecting the view of the analyst, which in this case is probably you. These costs and benefits must be compared over time. That is we need to give greater precedence to costs and benefits which accrue earlier in time, and discount to those occurring later. It also involves our comparing projects to each other for proper selection and implementation. Evaluation draws from information gained and examined why things went as they did, and how future operations can be improved.

3.4.6 Project Management

This is a system whereby the various skills' requirements can be brought together from ministries, universities, colleges and departments in task forces to design and carry out projects.

All around us are examples of faulty project management. These lapses occur because of faulty project planning and management. Examples abound, such Universal Primary Education (UPE) uncompleted government buildings, hospitals with out drugs, laboratories with little or no equipments, and so on. Sometimes during planning, people get preoccupied with technical, economic and financial feasibility considerations, relative to the project, the little attention is paid to the management and institutional factors all to the detriment of the project. Techniques have been formulated for project management, and these are usually utilized to depend on the nature of the project. Project management is appropriate for adhoc undertakings concerned with a simple specific end product, and for rase projects, which are different from the normal affair within that locality. Another decisive criterion for the use of project managements technique is the degree of inter dependence between the project tasks and effort – especially if the effort calls for many functionally separated activities to be pulled together.

3.4.7 Feed Back

We have together observed the Herculean task involved in undertaking a project. To keep in touch with the implemented plans, and to adequately manage our project, it is therefore imperative to have a feedback system. This comprises fan informational avenue used to continually give us an update of the progression of our project, it successes, lapses and interplay with already existing factors. Combining the implementation completion report and the project's impact evaluation, we can keep back of its progress. This system is also useful for long term analysis and aversion of forceable unfavourable outcomes of this and other projects yet to be undertaken.

Exercises: 1.2

- (1) What do you understand by the scope of a project?
- (2) Construct the model of policy implementation process?

4.0 CONCLUSION

In this unit, you have learnt about the different definitions of a project which point out to some factors we have to consider as we conclude this unit. In the definition of a project no one if such can encompass all the factors that have been bearing on a project; As such one definition will be misleading. It will therefore become useful to consider the project from its ingredients than from a definition.

Through these various definitions the project ingredients emerge such as investment of some resources, the size of the project, the achievement of some specific objectives, risk and uncertainty and cost / benefit or returns in the projects, etc

5.0 SUMMARY

In this unit the nature and scope of a project have been established through the consideration of many useful definitions. The nature of a project include some aspects such as technical, managerial and administrative, organizational commercial and economic. Project cycle, appraisals, pre-feasibility and feasibility study, implementation, evaluation, provision of facilities, management and feedback constitute to the scope of a project irrespective of the size of such a project.

6.0 FURTHER READINGS

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7.0 TUTOR MARKED ASSIGNMENT

- (1) Advance different reasons for the various definitions of a project
- (2) Mention the components or a project nature and scope
- (3) Describe the project management.

UNIT 2

APPRAISING OF PROJECT CYCLE

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1.0 INTRODUCTION

As you all know that project development in education institution especially tertiary level (University, Colleges of education and Polytechnic) in Nigeria is the responsibility of the benefactor institutions, the coordinating commission of tertiary institution (NUC or NCCE or NBTE respectively) and the federal government. The three groups work together for the attainment of the project cycle. They do this through adaptation of vigorous planning and resources allocation criteria.

From time to time different projects are initiated based on needs. In the discussion of project life cycle it is important you define they cycle.

Project cycle therefore is a continuous and sustaining cycle of activity use in evaluating a project and it runs through five different stages.

2.0 OBJECTIVES

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

1. Define project Cycle.
2. Identify the five step in each of the terminologies.
3. Explain in details.

EXERCISE 2.1

Can you list some likely problems in any of the higher institution from which project can be initiated?

The range of project is wide and varied

3.1 PROJECT CYCLE

Project life cycle is often rendered in different terminologies, which are in five stages. The first terminology describes project cycles stage as project definitions, planning and resources implementation hand-over and feedback, another terminology is identification, preparation, appraisal, design and supervision and management. You must realised however that despite these terminologies the project life cycle is always the same (Brimier et al 1992).

Breakage in between any of these stages as it will eventually under lead to waste of resources or some other problems. In order to avoid this whenever you want to embark on any educational project you must take care in defining and planning the project. If you initiate projects on trial ground or based on political consideration, you may be stagnated due to scarce resources to carry through. The resultant effect likely is that the project will be abandoned before the completion of the cycle.

3.1.1 FIRST TERMINOLOGY

3.1.2 THE PROJECT LIFE CYCLE

The project life cycle consist of five essential stages as we have mentioned in the introducing part of this unit.

These stages are definition, planning and researching, implementation, handover and feedback. According to Qurix (2001) the first two stages are referred to as inception.

3.1.3 PROJECT DEFINITION

The client has an idea of what is to be achieved. The ideas might have come from the chief executive of the institution or some or some technical team after this a project emerges.

The client should be sure of the rationale of the project, the likely benefit to the users and possible reaction of sponsor, which may be the federal ministry of education. It is at this stage that the scope is taking into consideration including its political impact as well. But in most cases only movement team define project under behind close doors.

Before the education project idea advances users and stakeholders should be consulted even the originators are few. Proper input that will convince the sponsors must be undertaken. Also the chief executive (client) must put together tangible factors and inputs, which will make the project a success.

3.1.4 PLANNING AND RESOURCE MOBILIZATION

You have studied that planning is mapping at in broad perspective hat is need to be done and the methods to do these thing.

At this stage a development plan for the project is required and this comprises the duration planning, user movement or displacement as the case may be and also proper budgeting is require.

Mobilization is very important without which a beautiful project might fail because it might lack a good financial base.

The planning stage is where you need to make sure that the architectural designs are prepared to provide a basis for cost estimate is done in the works, department of the benefiting institution or other competent consulting architect.

The detail design scheme is produced after the client has approved the sketch design.

The detailed design is used for cost estimates by the quantity survey or and the contractors.

EXERCISE 2.2

Who should be involved in the budget information and function of the estimates?

Uncompleted sentence

3.1.5 PROJECT IMPLEMENTATION

We are going to see how project is executed and the impact of a shoddy implementation is intensive as you have studies. It includes project ascendonment, building collapse with loss of lives and properties, increased maintenance cost and eventually increased maintenance cost and reduce patronage.

There are two-principle methods for providing projects which could be contracting and direct labour.

As the project progresses regular site meeting are held to ensure that the quantity of work is in order.

3.1.6 HAND OVER

When the contractor declares that he project is practically completed the consulting team normally and always go to inspect the project to allow for the commence of a defects liability period. After six months the team of consultants client representative and the contractors to ensure that the project meets the specification conducts a pre hand-over inspection. Among the things done during this stage is the process equipment are tested for certification.

A hand-over schedule is prepared by the architect and presented to the contractor for signing. The schedule reflects construction variations, deduction and the final amount due to the contractor.

3.1.7 FEED BACK

Many projects tend to reflect the feedback stage but it is an important aspect to project cycle. The clients gather information about its performance so as to improve on similar projects in future. Through the feedback mechanism thoughts are encoded by the sender of the project proposal, as a result of need and this is transmitted to management through a memorandum until an understanding is got about how the problem can be resolved for, for example, it might be through in cases of students enrolment explosion which necessitates a big lecture area the solution may be expansion of existing structure or a construction of new hall.

EXERCISE 2.3

How best will you tackle problem of student population explosion with inadequate facilities?

3.2.1 SECOND TERMINOLOGY

The second terminology of project life cycle runs through five stages: Identification, preparation, appraised, designed and supervision of projects..

3.2.2 PROJECT IDENTIFICATION

Most projects arose out of the desire to satisfy some societal felt need. The may develop out of the process of preparing socio-economic plants at the national state and local government levels. Project may thus be conceived of existing departments or ministries and may be identified by politicians or any other interest group the social or economic viability of projects should be considered in their identification, as appraisal to identification because of the ease of approval due to lobbying or were enthusiasm on the part of the relevance officers.

As an organized process forestall the undue influence of interest groups, certain guide lines are taken in identifying projects.

We consider the priority of the project on the government's list of development and whether the sector if the economic into which it falls is equally important and recognized as such by the governments.

We consider also the feasibility of the project i.e. whether the proposal solution to the project can be afforded at a cost commensurate with the benefits expected.

We consider the readiness of the government to support the project financially. These considerations are not exhausted in themselves but help to provide a rational framework for identifying projects.

3.2.3 PROJECT PREPARATION

Here we encounter the bulk of the administrative aspect of the project. After identification, one must rid himself of the erroneous assumption that the project can be completed operationally, and on time without full specification of objectives and a reasonable time table for achieving set goals. These should also be comprehensive and functional conditions necessary for success. One must also state the reactive costs and effectiveness of alternative ways of achieving the projects objectives.

3.2.4 PROJECT APPRAISAL

At this stage we make an attempt to provide information and analysis on a range of issues associated with the potential undertaking. This involves a

detailed assessment of the feasibility of the project in different areas such as the marketing, and technical aspects and also appraises the financial capability of the project to survive the planned duration of its life as well as its expected contribution to the economy's growth.

As the analyst, one would require a level of professionalism, which is usually difficult to attain. The project appraisal, is carried out on an ad hoc basis. We would therefore employ the selection of a good complement of project evaluators whose task is to provide an accurate assessment of its viability based on professionally determined criteria.

3.2.5 PROJECT DESIGN

If the appraisal is such that the decision makers give tentative approval to the project, then the next task is to develop the detailed project design.

Usually, we would have established a preliminary design criterion at the project feasibility and appraisal stage, but usually expenditures on detailed technical specifications are unnecessary at this stage. Once we are sure of its continuance, the design should become more detailed. This involves setting down basic programmes, allocating tasks, determining resources, and setting down in operational form the functions to be carried out and their priorities.

3.2.6 SUPERVISION AND MANAGEMENT

This involves consultant monitoring and evaluation of all aspects of the project. If implementation problems arise as it often happens, the project may have to be modified.

Management of project is a system whereby various skills requirements can be brought together from ministries and departments in task forces to design and carry out projects.

Exercise 2.4

Which educational projects are desired by your community and how practicable are these desires.

3.3 KEY CONCEPTS IN PROJECT CYCLE

From the discussion we have just had we can identify certain key points which will merge the broader aspects of the project into concise, ready-to-end points. This is for ease of remembrance and utilization.

3.3.1 NEEDS ASSESSMENT:

This based on identification and preparation of projects. Highlighted points of note include

- Situation analysis
- National needs
- National effort
- Problems
- Opportunities

Exercise: 2.5

Which of the need assessments of projects bring about the establishment of National Open University?

3.3.2 Programme design and appraisal

Which encompasses the next two stages earlier discussed under it we highlighted the following.

1. design of programme based on needs
2. Identified problems and opportunities
3. Project feasibility studies
4. Project Appraisal
5. Work Plan

3.3.3 Programme implementation and monitoring

Which is same as supervision

Highlighted points include

1. implementation of programme activities as contained in the programme plan.
2. Keeping record of progress.
- 3.

3.3.4 Evaluation Of The Project

This constitutes the final stage of the cycle. At completion, all projects are audited, and a project completion report is prepared by you the project staff. This evaluation project is subjected to both self – evaluation and an

independent evaluation. Long-term evaluation is also carried out on some chosen projects.

4.0 CONCLUSION

Once we have implemented the project activity as contained in the plan, we have to keep record of its progress.

Thus our evaluation is continuous process must, contribute substantially to development objectives and be economically, technically and financially sound. This is achieved through painstaking steps known as the project cycle in which all the steps.

5.0 SUMMARY

In this unit we have both studied and discussed the two terminologies of a project cycle.

Each of the terminologies contains 5 stages. The list terminology has definition, planning and resourcing implementation, hand-over and feedback as the five stages.

You should still be able to recollect the 5 stages of the second terminology as identification preparation appraisal, design and supervision despite these different terminologies the project cycle in the same. Breakage in any of these stages of project will render the work wasted.

6.0 FURTHER READINGS

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7.0 TUTOR MARKED ASSIGNMENT

- I. Define Key concepts in the project cycle?
- II. List the elements of a project cycle?
- III. Identify are successful or failed project in your state ?

Incomplete question



IV State reasons for its failure out in the context of project cycle.

UNIT 3

Project Analysis in Educational Project

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1.0 Introduction

In this unit we shall be studying the issues that relate to project analysis. Project as we all know can be a very expensive undertaking that makes demands on our time, energy and money. So it will not be all that wise for us

not to count the cost of embarking on one in the light of the benefit that will accrue to it.

Therefore, we are going to examine the different definitions of a project in order to have a sound basis for our analysis. Further discussion will be on the importance of feasibility, viability, accounting, decision analysis, marketing influence, data base projection and the actual financing of the project itself all in an attempt to analyze any given project whether it is worthy of embarking on or not.

2.0 Objective

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

- Define project analysis
- Discuss the stages in project analysis
- State the elements in project analysis
- Analyze the argument for and against project analysis
- Explain the various issues that touch on project analysis

3.1 Definitions of a Project

A project is seen primarily as a planning process, which uses one or more scarce resources during a specified time for the purpose of producing some economic returns or output at a later date.

A project is a capital investment to develop facilities to provide goods and services (Bierman and Smidh 1970)

Little and Mirrless (1980) sees a project as any scheme or part of a scheme, for investing resources which can reasonably be analyzed and evaluated as an independent unit

A project according to UNIDO manual (1972) involves the utilization in the near future of scarce or at least limited resources in the hope of obtaining in return some benefits over a long period

According to Kayode (1979) the important aspects of a project is not whether it is action or physical goods/work-oriented, but rather the investment I value and the benefits expected.

3.1.1 Major Ingredients and Determination of a Project

The following points are the features of a project.

1. Investment of some resources (significant), it defines some form of planning process.
2. It involves the use of scarce or limited resources.
3. The invested resources must be capable of being analyzed and evaluated as an independent unit.
4. It must be geared towards achieving some specific goals and objectives.
5. It involves cost and benefit or returns on the project
6. It involves time resources
7. It involves risk and uncertainty
8. Amount and cost of the investment must be significant as a matter of fact; a task has to satisfy the above conditions before it can qualify to be termed a project.

3.2 Elements of Project Analysis

In order to analyze the objectives of projects, there is need to establish a method by which project can be analyzed and evaluated in relation to their return and the initial investment made so that the investor can be in a position to identify, and select profitable project. Any project, be it private or public has to establish definite relationships between “investments” and “growth rates”. This essentials in determining investment should be carried out and decision that would maximize the volume of the firm to the shareholders which is done through the selection of the best project/investment opportunities with a view to minimizing the level of cost and maximizing the level of returns. A number of approached exist to help investors to answer some questions such as: where would I put my money? How would I get my money back? How much can I expect as return? What are associated levels of risk?

3.3 Stages of Project Analysis

The World Bank and several professional bodies have recommended specific stages under which any project could be analyzed. However, it should be noted that those stages under which project should be analyzed will depend on the type of project under which project should be analyzed will depend on the type of project under consideration and the environment of decision which is being considered, hence the following stages are identified:

1. The design
2. Identification
3. Preparation
4. Appraisal
5. Negotiation
6. Implementation
7. Evaluation

3.3.1 The Design

This stage consists of evaluating the environment and the prevailing variables such as prices, consumers demand, income level, level of technology etc. Activities relating to surveying, reviewing and invent rising the existing data as a prelude to planning of data analysis that is necessary for conducting studies relevant to the project are examined. If variables are considered, the project planner then accepts or rejects alternatives based on careful analysis.

3.3.2 Identification

This stage involves the selection of project of higher priority based on the stated objectives and strategies. Usually, the identification decision will consider such factors as defined objectives, constraints and estimating project cost and benefits.

3.3.3 Preparation

At this stage, constraints identified in the previous stage are examined more closely. It is important to note that these constraints are built around the technical, institutional, economic, financial, social and religious aspects of the proposed projects. The identified constraints are investigated with a view to determining how they can be renewed and what possible incentives and facilities can be provided to stimulated higher productivity.

3.3.4 Appraisal Stage

This involves a clear and comprehensive or systematical review of all aspects of the project covering the possible constraints already analyzed in the previous stage.

3.3.5 Negotiation

This stage involves discussion with lenders or provider of funds or assistance in the area needed to ensure a successful implementation. Any agreement reached at this stage is further embodied in the loan given (agreement) which is later passed to policy makers for certifications.

3.3.6 Implementation

The project development stage enters another phase in implementation, and when the implementation phase is completed and normal everyday operation begins. At this stage, the owners of the project become responsible for thinking out and knowing how to make the project work successfully. The lending agency provider of funds may be interested in the supervision and the implementation through the preparation of progress report on the project or periodic basis. This aims to insuring the project manager is complying with all government regulations, guidelines and agreements affecting the project. The implementation stage therefore is the most critical stage of the project. Since any deviation from the agreed terms can lead to the eventual collapse of the project.

3.3.7 Evaluation

This stage aims at reviewing the progress made and whether the project has achieved the intended result or not. Hence the evaluation stage pays special attention to the following:

1. Whether the output, set targets are being met.
2. Whether the identified constraints have been removed or dealt with effectively. If not why?
3. Whether the target beneficiaries have been reached, if not what are the possible barriers.
4. Whether the objectives, goals are being met and the lesson to be learnt in the future in terms of selection, design and management of new and similar projects. Hence, all projects should be evaluated carefully by applying the same principles; otherwise inconsistent decisions are likely to be made. Hence, in project evaluation attempt is also made to look at the past, present and project into the future in terms of the receipts and payments for goods and services.

Exercises 3.1

1. What are the elements of project analysis?
2. List the stages of project analysis

3. What do you understand by the ingredients of a project?

3.4 Feasibility and Viability

In project analysis, the two terms are often used interchangeably and technically they are different. We have to draw the difference between the two, which is more technical and academic than practical aspect. But for the purpose of our analysis, this distinction can be drawn from the following questions. Firstly, you must understand that feasibility analysis seek to answer such questions as to; “will the project be possible and practicable?” while viability analysis seek to answer such questions as to; “will the benefits of the project justify the cost? And would it be financially worth undertaking the project?

As you will observe the issue of contention is whether project analysis applies to a completely new project or to an existing project or both of them. Though it is argued that feasibility and viability analyses are applied to a completely new project whereas viability analysis is more relevant to an on-going project. But the counter argument holds that a feasibility and viable analysis is equally needed for an on-going project where such an institution wants to diversify to a new line of operation. It is possible for a project to be passed as viable but not to be executed for lack of feasibility factors. Such project will fail if implemented. And a project can be feasible but not viable. It would not be wise for such project to be implemented because of economic and financial implication.

Exercise 3.2

Compare and contrast the project feasibility and viability

3.5 Project Cycle

Remember all that you have learnt in the previous unit about project cycle. What do you do before you embark upon any project? Is it any easy task? If you think so, you are wrong. The aim of this section is to establish some useful process, which you need to follow. Before embarking on any project such process that you need to prepare and take into consideration is basically known as project cycle. It consists of series of activities and since project decisions are taken at all level of activities, there is need to understand clearly the various stages of activities involved. The cycle is made up of stages such as

- Identification
- Preparation
- Appraisal
- Design

Exercise 3.3

1. List the stages of project cycle
2. Explain feasibility and viability

3.6 The Project Account

Your preparation and analysis of a project account and financial statements must be identified. As you understand that in project analysis, an attempt is made to look at the past, present and future of the project as well as term of receipts and payments of material and other services.

Accounting and financial statements do aid the process of effective project analysis such as funds flow statement, importance of working capital of projects, managing accounts receivable and effective management of accounts in payable to workers, suppliers of materials and other changeable services in the course of the project.

3.6.1 Project Account Concept

The following concepts: accounting, financial statements, features prominently in the preparation of a report and in the analysis of such report, as you have learnt project analysis attempts to look at past, present and project into the future in terms of receipts for goods and services.

You need to ask yourself some questions before you will be able to assess the reliability of the prediction.

The following are the questions:

1. What would the annual receipts and payment of the organization be if the project undertaken were compared with what the outcome would have been if the project were not undertaken? Or
2. What are the future prospects if the project is undertaken now?

Planners that embark on projects without considering these questions would end up undertaking unviable projects. These questions are both relevant to the private and public projects.

For effective project analysis, we will discuss some important accounting financial statement and concepts.

1. Funds Flow Statements

Any good organization needs to know how well or badly it has employed its resource. It needs to have and keep account of what remains of them. Reporting of such financial activities by an educational institution consists of certain financial statements. The state of any organization's financial activities is reported at a particular point in time on the balance sheet. Balance sheets are treated in unit 8. The operations over a period of time are reported on the income-statement and on the funds statements.

Funds statements, is the summary of all the operation of the institution and of the financing and investing activities of organization such as the university college of education for a period of time (Ekpenyong 1993).

Funds statement, therefore, as you should have known accounts for all the changes in financial positions on successive balance sheets.

We can now say that funds statement provides a summary of the sources which funds become available and the purpose for releasing the funds, which is, described in two ways e.g. working capital and cash.

Working capital can be described as the arithmetic difference between current assets and current liabilities known as 'Net Working Capital'. Secondly, it is referred to as the sum of total current assets, often referred to as "Current Capital" but the former definition is in common use that the later.

Funds can be defined as cash and when it is defined that way, the balance sheet account changes, requires analysis in terms of their effects on the movement of cash.

Cash is therefore, used in the sense of current assets, i.e. cash on hand and current account deposits in the bank.

2. Cash Management

Cash management according to (Ekpenyong 1993) involves planning and control. Many organizations do not have formalized cash management policies. They act only when cash problem emerges. Cash budget is a vital aspect of cash management. The cash budget lays out the plan on how to finance the organizations operations. Cash budget is a statement of cash planned; where receipts are more than the users of payment there is a surplus but where the payment are more than receipts, there is a deficit.

3. Importance of Cash Budget

Cash budget enables management to see the pattern of planned monthly movement of the institutional funds, which enables management to take appropriate action at the appropriate time.

3.7 Decision Analysis

In decision analysis it is important we examine how you can make some rational investment/project decisions under condition, which can be considered as certain, risky and uncertain. Conditions of certainty needless one state of nature in which the decision maker has sufficient information about all the elements affecting the outcome of the decision maker has sufficient information about all the elements affecting the outcome of the decision. Risk refers to a situation where the probabilities of alternative outcomes are known or at least can be estimated with some degree of precision but the outcome uncertain. While, uncertainty refers to situations where the unknown outcomes cannot be predicted even in probabilistic terms. The implication here is that you can measure the risk of “certainty” but the reverse is the case in “uncertainty” cases.

3.7.1 Decision Under Condition of Certainty

Under this condition, you are capable of predicting the outcomes of your decision. You assume certainty of the uncontrollable factors dealing with only one state of nature. Since a decision involves action in the immediate future and if that decision has been made a number of times with the same result, you can as well assume that you know and can determine the expected outcome. But in real life situation you may find it difficult in view of the rapid changes in the environment.

There are still some problems associated with decision made under the certainty condition; some can be more complicated than you have anticipated at first sight of the project. In handling these problems there is a number of strategies you can adopt such as;

1. Strategy with the best outcomes. That is, despite the already known outcomes, it is essential to evaluate and compare the outcome to which the strategies may lead. For example, supposing you embark on building a multi-purpose hall in a college you have to consider the target population (Students) and purposes and possibly the durability of the building.

A situation of two strategies and one state of nature. Here, the strategy is to reduce the multiple outcome descriptors to an overall single measure, which reflect their aggregate worth. The implication is that you will think of resources cost and benefit of undertaking such a project. The benefit can be viewed as the return associated with an outcome in terms of resources gained or the psychological, sociological or other tangible values derived form the state of nature.

Strategy for multiple outcomes: As we discussed earlier, the costs and benefits for each outcome were reduced to a single aggregate measure of profit. But there are situations where choices under certainty may not be that straight forward.

3.8 Method of Acquiring Forecasting Information

Forecasting is as good as the quality and validity of the information that is used to make predictions. In considering information you must appreciate the difficulty it involves to assess the quality and validity of information. The assessment has to do with experience and time. So in considering information input into the forecasting process, two issues have to be explained.

1. The informal monitoring by the manager

In this case, the manager gathers information at work by listening to what others are saying. It is not formal or predetermined but through observation he is able to collect the information. Have you ever gathered informal information like that at work?

2. The Formal Scanning

This is predetermined. The manager purposely gathers information. He makes effort to gather the information from the environment. In many tertiary institutions monitoring activities in the environment are given to a unit in the organization in which case such examines all media documents, speeches of politicians and various reports from external sources.

3. The Formal Search

This is a scanning process purposefully undertaken by the organization to obtain information for specific forecasting purpose.

Exercise 3.4

1. Discuss the project account
2. Explain decision analysis under uncertainty.

3.9 Ratio Analysis

Society is dynamic so are the operations of men. We are in a technological age and the world is already a global village so new break through circulates fast especially with the help of internet.

Accounting as a discipline too has undergone drastic changes dividing the past decade. Many recent advocate in qualitative methods, the behavioural sciences and information technology have all influenced current thinking in financial and managerial accounting.

There is constant effort being made to bridge the gap between modern financial procedures, economic and financial theories and the traditional financial analysis. In the traditional analysis, the organizational past and present profitability liquidity and operational efficiency through the examination of performance indicators of each organization have been presented. But with the corporate world, perception of financial analysis changed to a more systematic analysis of the organizational financial data. The investors are therefore more concerned about performance evaluation. The scope of financial analysis further extended to the use of inter-organizational comparisons of ratios and acceptance of industry average as the major standard. Can you now see how we have arrived at the age ratios?

Ratio analysis involves careful selection of those ratios, which will provide an insight into the performance of the organization.

Ratio analysis is therefore a very useful aid to management even though it cannot substitute for it. Ratio analysis according to Ekpeyong assumes that there is a relationship between certain aspects of activities of the organization as revealed in the income statement profit and loss account, and the balance sheet, which establishes a pattern of behaviours (Bull 1980). As we all know a ratio is just one number expressed in terms of another.

You should note that a particular ratio might be satisfactory under one set of circumstances and entirely unsatisfactory under another set of circumstances.

3.10 Project Financing

In making out financial issues a lot of things need to be taken into consideration so in your analysis of financial arrangement for the execution of specific projects, such issues are important and they are as follows:

Preconditions: well-prepared and comprehensive feasibility study should be done so that outcome of the study will confirm the viability of such a project and it is advisable that you should not enter into any financial arrangement before the study is concluded.

3.10.1 Factors to be Analyzed are the Following:

1. The magnitude of the funds required
2. Structure of the funds
Whether it is shareholders', commercial bank, overdraft, long time lending government owned educational institution don't take loan.
3. Interest Rate
This is the cost of using the capital in the project and thus the cost of using somebody else's money. The higher the rate of interest the more the cost of financing the project
4. Moratorium
This is the grace period granted to the borrower before; he commences the payment of loan granted to him.

When it takes a long time than the time required for project execution can be delayed, cost can get higher and the delay in getting the loan can hamper so many other things.

5. Disbursement of Approved Funds
After the approval of the .loan it can take some time before the fund is given to him, which could be as a result of lack of funds, administrative bureaucracy; and unhealthy working environment with inherent malpractices.

3.10.1 Sources of Financing Projects in Nigeria

For government owned educational institutions, the government (federal, state and local) does fund projects. However there may be interventions from say Petroleum Trust Fund (PTF) and Educational Tax Fund (ETF). Apart from these ones, World Bank does from time to time financial projects. United Nations Educational Scientific and Cultural Organization (UNESCO), United Nations International Children's Fund (UNICEF), and other foreign agencies do finance various project regularly.

In Nigeria, there are quite many private educational institutions, which may seek for financial assistance from banks in Nigeria. The sources of financing that open to them are:

1. Private or owners capital
2. Non-institutional
3. Institutional (Commercial banks and certain development banks).
4. Credit from suppliers.

Exercise 3.5

1. What do you understand by project ratio?
2. What do you understand by project financing?

4.0 Conclusion

In this study we have tried to discuss about project analysis with all the issues is that related to the analysis

There is still an on-going debate as to whether the project should be analyzed especially in a good organization with good management in place. For the student of educational management any discussion on project development and management will always be a welcoming idea and as there is a constant change with many recent advances in qualitative methods that influence our thinking about financial and managerial accounting, it will always be right to follow the trend of discussion so that we will not be left behind.

5.0 Summary

In this unit you have learnt about most of the issues that bother on project analysis such as the project account decision analysis, data base for forecasting, ratio analysis, project financing, evaluation of project and feasibility studies. Each of these has been discussed briefly. You have learnt about the stages involved in project analysis such as design, identification,

preparation, appraisal, negotiation, implementation and evaluation. Coupled with this is the mentioning of the elements of project analysis. We have also seen that project analysis even though very important to management in aiding its operations cannot be substituted for management but it aids it.

6.0 Further Reading

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7.0 Tutor Marked Assignment

Discuss the fundamentals of Project Analysis

UNIT 4**PROJECT FINANCIAL ANALYSIS****TABLE OF CONTENTS**

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1.0 INTRODUCTION

It is important for any institution to form judgement about the operating performance and financial position of that institution. The institution can get better insight about the financial strengths and weaknesses of the organization if the information from financial statement is properly analysed. All institutions should be particularly interested in knowing the corrective measures to take in view of any weakness spotted. The future plans of the institution should also be clearly stated in view of its financial strength and weakness. Thus financial analysis is the starting point for making plans before using any budgeting procedures. In this unit therefore, we will be examining project financial analysis, its meaning and uses; its contents and forms and especially its overall contribution to project implementation management.

2.0 OBJECTIVES

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

- a. Define financial statement.
- b. State the major functions and contributions of project financial analysis.
- c. Come to a good understanding of financial statements and be better to qualified to analyse them.
- d. Explain the steps to be followed in project financial analysis.
- e. Identify the objective of financial analysis

3.1 FINANCIAL ANALYSIS

Financial analysis is the process of identifying the financial strengths and weaknesses of an institution by properly establishing relationship between the items of the balance sheet and the profit and loss account. Financial analysis provides you with a framework within which all aspects of a proposed project can be evaluated in a coordinated and systematic manner. Careful project analysis will identify unrealistic and questionable assumptions and indicate ways in which a project can be modified to improve its wealth generating capacity or to increase the non economic or nonquantifiable values which we expect to gain from it.

3.1.1 Objective of Financial Analysis:

These objectives include:

1. To ensure that there are adequate incentives for project participants.
2. To assess the financial impact of the project participants. This assessment is based on an analysis of the participants' current financial position and on projections of their financial positions as the project is implemented.
3. To provide a sound financing plan for the project.
4. To determine whether the financial requirements of the individual participants in the project are properly coordinated.
5. To assess the financial management competence in order to form a judgement about how well they will be able to discharge their responsibilities for project implementation and what management changes may be necessary.

It is important for you to note that just how elaborate the financial analysis must be for a particular project will depend upon the organisation of the project and its complexity.

The financial projections for the private institutions or project entities may be quite simple while they may be quite complex in projects involving a whole number of different institutions.

3.1.2 CONTENTS OF FINANCIAL ANALYSIS

We are going to highlight the contents briefly.

The contents of financial analysis include:

- i. audited financial statements for existing organizations.
- ii. Statements of total project cost, initial capital required and cash flows relative to the project timetable in the cases of new organizations.
- iii. For all projects, financial projections for future time period including financial statement schedules for the financial projections stating assumptions used.
- iv. Financial analysis showing return on investment, equity, breakdown volume and price analysis.
- v. A sensitivity analysis, if necessary.

3.1.3 STEPS IN FINANCIAL ANALYSIS

Things you are expected to learn in a financial analysis are in the following steps:

1. Estimated Total cost: Information expected here will include the fixed investment cost, the working capital requirement, the project start upcosts, and the project cost summary.
2. Estimated Financing Needs: This is to determine the forms of financing and the sources of funds
3. Prepare pro-forma statements: This is an attempt to forecast business operation, over a determined time interval by means of the following profit equation:
Net Profit tax – sales – Returns and allowances – cost of goods sold – operating expenses + other revenue – interest expenses – income taxes.
4. Prepare cash Flow projections: This is to show movement of cash into and out of the institution. The statements are useful for financial planning, project evaluation and control.
5. Prepare pro-forma balance sheet: This represents the financial position of the firm at a given date.
6. Evaluate project feasibility:

7. This is the measure of profitability of the project and the following approaches can be used. Internal rate of Return, pay back period, Net present value, benefit/cost Ratio.
8. Analyse projections of operating conditions further analysis may be necessary using financial ratios.'

3.1.4 USES OF FINANCIAL ANALYSIS

You have seen that financial analysis is essentially the evaluation of an institution's liquidity position. It analyses the institution's profitability over time and provide financial statement to make analysis about the institution's future solvency and profitability. Financial analysis also enable the institution to know if it can meet its current obligations. It also explains to the institution if there is any danger to the solvency of excessive debt. Financial analysis confirms if the earnings of the institution is adequate or note and it explains how efficiently the institution uses its finance.

3.1.5 POINTS OF VIEW IN PROJECT FINANCIAL ANALYSIS

The individual financial activities which participate in a project are mainly concerned about the returns on the equity capital they contribute. We may consider this financial return to an equity participation in a project and we determine it through what we will term financial analysis

Financial analysis is important when we turn to a consideration of the incentive structure associated with a proposed project investment. It will do us no good, for instance, to have a project which is profitable from the standpoint of the whole economy if individuals participating on it are unable to earn a living from their participation.

The financial aspect of project analysis deals primarily with the revenue earning with whether the project will be able to repay these and whether the project can become viable.

It is important to note that it is not only crucial to analyse a proposed project to be certain it will be beneficial from the standpoint of the economy, it is also critical to assess whether the project entities which are to participate will have sufficient incentive which will make them willing to participate.

It is financial flows on which this assessment can be based which are the domain of financial analysis. Having looked, in detail into what financial analysis is, we shall now look at the Objectives of Financial Analysis.

3.2 NATURE OF RATIO ANALYSIS

In this section, we shall consider Ratio Analysis as a powerful tool of financial analysis. In financial analysis, a ratio is used as an index or yardstick for evaluating the financial position and performance of an institution. The absolute accounting figures reported in the financial statements do not provide you with a meaningful understanding of the performance and financial position of an institution. The relationship between two accounting figures, expressed mathematically is known as financial ratio. A ratio helps the analyst to make qualitative judgement about an institution's financial position and performance. It is calculated by dividing current assets by current liabilities: the ratio indicates quantified relationship between current assets and current liabilities. This relationship is a yardstick which permits a qualitative judgement to be formed about the institutions' liquidity. Therefore, the greater the ratio, the greater the institutions liquidity and vice versa. The ratio therefore indicates a quantitative relationship which can be used to make a qualitative judgement.

3.2.1 SIGNIFICANCE OF RATIO ANALYSIS

We should be able to say that with the help of ratio you can determine:

- i. The ability of the institution to meet its current obligations
- ii. The extent to which the institution has used its long term solvency by borrowing funds.
- iii. The efficiency with which the institution is utilizing its various assets in generating sales revenue.
- iv. The overall operating efficiency and performance of the institution.

The ratio analysis is also useful in security analysis the major focus of which is on the long term profitability of the institution. From time to time, management uses ratio analysis to determine the institution's financial strengths and weaknesses and accordingly take actions to improve the institution's position. The ratio analysis will reveal the financial condition of the institution more reliably when trend analysis indicates the direction of change over a period of years in ratios over time are analysed.

Exercises 4.1

1. Define project financial analysis
2. State the objectives of financial analysis
3. Discuss the steps taken in financial analysis

3.2.2 LIMITATION OF RATIO ANALYSIS

As you have seen, ratio analysis is a widely used technique to evaluate the financial position and performance of an institution. However, there are certain problems in using ratios. Some of these limitations which the analyst and you should be conscious of are:

1. It is difficult to decide on the proper basis for comparison
2. The comparison is rendered difficult because of differences in situations of two institutions or of one company over the years.
3. Price level changes make the interpretations of ratios invalid
4. Differences in the definition of items in the balance sheet and the income statement make the interpretation of ratios difficult.
5. The ratios calculated at a point of time are often defective and are therefore no indications for the future.

The ratios of an organisation have meaning only when they are compared with some standards. It is difficult to find out a proper basis of comparison.

Usually, it is recommended that ratios should be compared within the organisation averages.

You will agree that the situations of two institutions are never the same as the factors influencing the performance of an institution in a year may change in another year. Thus the comparison of the ratios of two institutions becomes difficult as the interpretation and comparison of ratios are rendered invalid by the changing value of money. While the financial analyst is more interested in what happens in the future, the ratio indicates what has happened in the past and also while management of the institution has information about the institution's future plans and policies and therefore is able to predict future happening to ascertain the extent the outside analyst has to rely on the past ratios which may not necessarily reflect the institution's financial position and performance in future.

Exercise 4.2

1. What is the importance of ratio analysis in the light of financial analysis of education projects?
2. Enumerate the limitation of ratio analysis
3. What do you understand by trend analysis in to financial analysis of educational projects?

3.3 TREND ANALYSIS

Trend analysis indicates the direction of change over a period of years in an institution's financial analysis. This kind of analysis is particularly applicable

to the items of profit and loss account. For trend analysis the use of index number is generally advocated. It is advisable that trends of sales and net income are studied in the light of two factors the rate of fixed expansion or secular trend in the growth of the business and the general price level.

3.4 FINANCIAL COSTS AND BENEFITS OF PUBLIC SECTOR PROJECTS

The appraisal of the financial and economic costs and benefits of a project is a central consideration of project evaluation. The data relating to the financial aspects of a project allows for an objective to its expected. The comparison of the financial benefits of a project with its corresponding costs regimes that all the relevant data are first organized into a financial project profile covering the entire duration of the project. An important feature of most investment projects that you should take particular note of is that costs and benefits relating to a project are spread overtime to which could range from a few months to a number of years. Thus, in calculating the financial costs and benefits of a project, time is usually an important factor.

3.5 INFORMATION REQUIRED FOR FINANCIAL FEASIBILITY ANALYSIS

The following constitute the information that you may need in financial analysis:

- Sales plan which includes estimate of sales revenue, promotion and advertisements costs and selling and distribution expenses.
- Manufacturing plan comprising direct material, direct labour and overhead.
- General and administrative plan which will show all other expenses apart from selling, distribution and manufacturing expenses.

3.6 CONSTRUCTION OF THE PRO-FORMA CASH FLOW STATEMENT

In constructing the pro-forma cash flow statement, the following are important considerations you need to make

1. The investment plan: The first step in the construction of a financial cash flow is the formulation of the investment plan for the project based on the information developed in the technical, manpower and marketing modules. While this initial estimate of the timing of the various investment activities may have to be adjusted later when the

analysis of the optimal timing of the project is completed, it is important that the investment plan conforms to what is a realistic times schedule given the manpower, financial and supply constraints in the economy as well as the technical attributes of the project. After this reconciliation has been made, the investment plan will contain a listing of all the expenditures to be undertaken up to the of point where the facility is ready to begin its normal operations. Each of these expenditures should be identified according to the year in which it is expected to occur, breakdown into part that is being spent. An investment plan should also contain an outline of how these expenditures are to be financed. The financing may consist of equity/ grant funds, domestic loans (both short and long term), foreign loans and foreign aids. You have to determine which of these will be as an inflow of cash to the project depends on the point of view from which the analysis is undertaken.

2. The operating plan: The future expected performance of a commercial investment project is summarized in the set of proforma or prospective financial statements which can include balance sheets, profit and loss statements, and cash flow statements for each year of the expected life of the project. For the purpose of investment appraisal, you will agree, it is the cash flow statement which is directly relevant.

3.7 FINANCIAL STATEMENTS

An institution communicate financial to the users through financial statements and reports. The financial statement contains summarized information of the institution's financial affairs, organized systematically. They are the means to present the institution to the various institutions.

Financial statements are prepared from the accounting records maintained by accounting records maintained by the institution and the principles and procedures are followed to prepare these statements.

Exercises 4.3

1. What is the relationship between accounting and educational management?

2. What is the main objective of accounting?

3.7.1 STATEMENTS OF FINANCIAL INFORMATION

The basis for financial planning and analysis is financial information. Financial planning and analysis is needed to predict compare and evaluate the institution's earning ability. It is also required to aid in economic decision – making and financing decision making. The financial information of an enterprise is contained in the financial statements.

3.7.2 SOURCE OF FINANCIAL INFORMATION

You should realize that accounting system is the guide-post for educational management. Every enterprise should know the activities carried on by it. By the way, accounting is the process of identifying, measuring and communicating economic information to permit informed judgement and decisions by users of the information. The financial score of an enterprise is kept by the accounting system. It points out the problems faced or likely to be faced by the institution. It also brings to the notice of the institution the opportunities that are likely to arise. It indicates possible actions when needed.

The objectives of accounting are to provide information for the following purpose:

- i. Making decisions concerning the use of limited resources, including the identification of crucial decision areas and determination of objectives and goals.
- ii. Effectively directing the controlling of an institution's human and material resources.
- iii. Maintaining and reporting on the custodianship of resources
- iv. Facilitating social functions and controls.

The main objective of accounting is to provide information to the institution to make relevant decisions and form judgement.

Accounting also has certain broad social obligations as the accounting information is used by a large body of people and customers.

Accounting has to perform three functions. These are accumulation measurement and communication of information. The process of accumulation of identified and gathered data involves the recording and analysis of economic events. The accounting records include journals and ledgers. Accounting records are essentially historical in nature, as the events recorded are the ones which have already occurred. Accounting gives more

emphasis on the decision-making goal, rather than the process of recoding, classifying, summarizing and interpreting.

3.8 BALANCE SHEETS

In this section, we shall explicate the basic features of the balance sheet. The balance sheets consists of:

Total Current Assets: These include cash, marketing securities (Short term), Accounts Receivable, Inventories, prepaid expenses and other current assets.

- i. Total Fixed Assets: These include the Depreciable assets (net) and Depletable assets (net).
- ii. Total other Assets: These are mortgages and other assets.
- iii. Total Assets: These are the sum total current Assets, the Total Fixed Assets and Total other Assets.
- iv. Total Current Liabilities: These are bank loans, Accounts payable Taxes payable and short term loans.
- v. Total con-current liabilities which are Net-long-term debt provision for future income taxes and other liabilities.
- vi. Total Liabilities Net worthier Equity: These include the sum of Total current liabilities and the Total Non-current Liabilities Total Assets = Total Liabilities + Net worth.

3.9 CASH FLOW

‘Cash flow’ is an important concept in project analysis because the costs and benefits accruing to a project occur in a ‘flow’ over a period of time.

The costs included in project analysis consist of expenditures on goods and services actually used by the project, during both the investment and operating stages.

The concept of cash flow is very broad and encompasses most of the costs and benefits commonly attributed to a project. However, there are two major exceptions: depreciation and finances charges.

Depreciation is an accounting transaction which is made for two reasons which you need to pay attention to:

- i. It is convenient way to ensue that some reserves are retained to replace capital as it wears out.
- ii. It is considered a cost for income tax purposes. Therefore, deducting depreciation from income reduces tax liability.

Finance charges, interest and principal repayments are also excluded from cash flows in doing social appraisal and frequently in commercial appraisals as well.

Exercises 4.4

1. What information will you need for financial feasibility analysis?
2. What considerations will you make in constructing the proforma cash flow
3. Describe the structure of balance sheet.

4.0 CONCLUSION

In this unit, we have considered project financial analysis as an important instrument in project conception and implementation. As we have seen, project Financial Analysis enables us to know the financial position of the institution involved in the project with a view to determining its strengths and weaknesses and to plan, based on its past performance, its future direction.

5.0 Summary:

In this unit, we have learned the basic meaning of project Financial Analysis, its functions and contributions. The unit has also discussed the nature and form of the financial statement which is a reflection of the financial strengths and weaknesses of the institution concerned. Undoubtedly the unit has exposed you to the steps to be followed in project financial analysis which is considered to be a systematic and coordinated exercise.

6.0 FURTHER READING

1. Oviwgho Y.M. (1991) The Theory and Practice of Educational Planning in Nigeria. Think Publishing Co. Ltd).
2. Psacharopoulos G. LAND Woodhall M. (1991) Education For Development: An Analysis of Investment Choices (A World bank Publication (Oxford University Press)

7.0 TUTOR MARKED ASSIGNMENT

1. List the steps in financial analysis
2. Explain the content in evaluation
3. How will you construct the proforma cash flow

UNIT 5

PRE-FEASIBILITY ANALYSIS

Table Of Contents

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2.0	Objectives
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1.0 INTRODUCTION

In this unit we are going to discuss pre-feasibility study. This is in an attempt to lay a solid foundation for managers on whether or not to embark on a project. The pre-feasibility study will enable the manager to examine the overall potential of the project. The pre-feasibility study will enable the manager to examine the overall potential of the project. The pre-feasibility study itself relies on initial correct definition of project which must be undertaken. It is therefore given that the project still appears to have potential after this initial assessment that the pre-feasibility study will commence. In some situations, the agency directly concerned with the project may not undertake the pre-feasibility study itself. In this case the initial project definition activity is essential in preparing the terms of reference for another agency or consultants who will do the appraisal.

2.0 OBJECTIVES

It is expected that by the end of this unit, you will be able to:

1. justify the need for pre-feasibility study
2. define pre-feasibility study
3. list the different areas of pre-feasibility study
4. explain the modules in the different areas.

3.1 WHAT IS THE PRE-FEASIBILITY STUDY

You should realise that pre-feasibility study is the first attempt to examine the overall potential of the project. In order to analyse every part of the project as area level of accuracy must be maintained throughout, while keeping it in mind that the purpose of the study is to obtain estimates that reflect the right 'orders of magnitude'. The pre-feasibility of any result sector project covers six different stages. The following are the stages..

3.2 MARKETING MODULES

The marketing module should begin by assessing whether the output of the project is to be used to meet local demand or to be sold international. You should know that for most products sold in the international market, there is a vast amount of information available on market trends, new technology and the approximate cost position of potential competitors. The key question you should ask is: what are the advantages and disadvantages which the proposed facility will have relative to other competitors who will be active in this market both domestically and internationally?

For some products e.g. relatively homogenous ones sold in organized competitive markets), research on costs relative to those of other producers may suffice. For other products, research on likely price trends may be needed. For yet others, research into the likely demand for the output of the specific project under consideration may also be indicated.

For the market analysis of a project which is to be sold in the domestic market, it will be more important to begin primary research at the pre-feasibility stage of the product. This has to be done before an accurate picture of the potential market for the product can be determined. You can make an appraisal to speculate on how the competitors in the market are likely to react if the product is to be sold in a competitive environment. This information can be obtained by reviewing the previous activity in the market by reviewing the strength and weaknesses of the competitors.

In the case of public monopolies such as public utilities, government policies themselves may constitute important variables in determining the demand for

the output. It is also important to note that extension of electricity to the rural areas and the development of industrial complexes will have an important bearing on the future demand for the output. The growth in demand with respect to variables such as disposable income, industrial output, household formation and relative prices are also important considerations. The study of growth in demand experienced by utilities in other countries with similar circumstances can often provide a good indication of what can be expected in the future.

If the project for which pre-feasibility study is being designed is a commercial one, the output of this module should be a set of forecasts of the following variables for the duration of the project:

1. Quantities of expected sales and prices for goods to be sold in competition with traded goods from other countries, regardless of whether such sales are made for domestic or foreign customers.
2. Quantities of expected sales and prices for goods to be sold domestically and not in competition with internationally traded goods
3. Sales taxes and export taxes that are expected to be paid by the consumers of the traded goods.
4. Sales taxes to be paid on goods not traded internationally
5. Subsidies to be received on the basis of production or sales, exports etc
6. Government regulations such as price ceilings, floors or quotas, affecting the sales or price of the output.
7. Product trends in terms of technological development and the expected product cycle.
8. All trade restrictions that are not caused by government regulation must be identified and their impact quantified.

3.3 ENGINEERING OR TECHNICAL MODULE

This is another kind of module you should be familiar with. In this module, secondary research can be used very effectively. You will agree that engineering firms and technical experts in a field usually have considerable experience in other projects that have used either identical technology or similar techniques. Often there are a number of consulting firms or government agencies that have technical expertise in a specific area. One of the most important things for you to note when using outside expertise in assisting with feasibility studies is that the consulting group being employed to provide this information must be clearly told that it wins does not be considered for the design or management of the facility in the design and implementation. It is critical to avoid placing the consultants used in the appraisal of a project in a position where they have a conflict of interest.

Consultants should be hired at the appraisal stage to provide truthful information based on their past experience. The authorities may also wish to indicate to the consultants that if their estimates for the current project prove to be accurate, then they will receive favourable attention when contracts are being let on future design activities of other projects. The consultants used to assist in the preparation of the appraisal should also be retained to check and approve the design and cost estimates developed by the group which has been given the task of preparing the final detailed plans.

You can now begin to imagine the implication of not adhering to the procedure spelt out above. If this procedure is not followed engineering or technical consultants may consciously underestimate costs so that the project will get approved in principle and thus give them an opportunity to obtain the more profitable task of preparing the detailed design of the project of course, the worst possible situation is to ask for free advice at the appraisal stage on the basis that the outside experts will be given a chance to do further work for hire if the project is attractive. You will note sadly, that many governments or institutions are guilty of these last two procedures.

The technical module for a pre-feasibility study should obtain the following information:

1. The quantities of inputs by type which will be required for the construction of the project.
2. The prices of these inputs and their probable sources of supply.
3. Labour requirements by skill and by time of construction for the building of the project.
4. The physical input requirements for the operation of the project by year and by volume of sales
5. The likely sources of supply for these inputs and the price assumptions used to estimate future costs of the project
6. Information on the technological life of the project
7. The labour requirements by skill for the operation of the project
8. The nature of the outputs of the project which have an impact on environment surrounding the facility and a quantitative assessment of these impacts.

Exercises: 5.1

- (1) Evaluate marketing module for pre-feasibility study?
- (2) What information should technical module have?

3.4 MANPOWER AND ADMINISTRATIVE SUPPORT MODULE

This module must reconcile the technical and administrative requirements of the project with the supply constraints on manpower available to the project. If these requirements cannot be reconciled, then the project should not be undertaken. It is recommended that a careful study of the labour market should be made in order to ensure that the estimates of wage rates to be paid are accurate and that the planned sourcing of manpower is reasonable in the light of labour market conditions.

You should note that in general terms, manpower requirements should be broken down by occupational and skill categories, and these needs should be calculated in terms of the possible sources from which they might be met. Where both of these needs are foreseen, this information should be passed to the technical module so that possible revisions of the timing of the project can be considered.

3.5 FINANCIAL / BUDGET MODULE

The financial/budget module provides the first integration of the financial and technical variables that have been estimated by the previous modules. It is necessary to construct a cash flow profile of the project will be conducted. These are expected to identify all the receipts and expenditures that may occur during the life time of the project. You should note also that even in the pre-feasibility stage an attempt should be made to provide a description of the financial flows of the project. This identifies the key variables to be used as input data for the economic and social appraisal. You would have noted that because of the need for estimates of particular variables (e.g. foreign exchange requirements) for the purpose of making economic and social project appraisals the level of financial detail required is considerable great/high in this module.

1. What relative degrees of certainty do we place on each of the revenue and cost items in the financial analysis and what factors are expected to affect these variables directly and in what ways?
2. What sources of financing will be used to over the cost of the project? Does this financing have special features such as subsidized interest rates, grants, foreign equity or loans (tied or general)
3. What is the minimum net cash flow required by this project to be able to continue operations without unplanned request being made of the government treasury of supplementary financing?
4. Does the project have a large enough net cash flow or financial rate of return for it to be financially viable? If not, what sources of additional

funds are available and can be committed assist the project if it is economically and socially justified?

Looking at this module in general and considering the questions above, you will agree that to avoid failure if any one of these questions points to future difficulties, adjustments should be made in either the design or financing of the project.

Exercises: 5.2

- (1) Why financial module for pre-feasibility study?
- (2) Define manpower requirements?

3.6 ECONOMIC MODULE

Under this module, what you should bear in mind is that the objective of the economic appraisal is to examine the project from the point of view of the economy generally with a view to determining whether or not implementation of the project will improve the economic welfare of the country.

In a very real comparative sense, an economic appraisal is of exactly the same nature as a financial analysis, except that in the case of an economic analysis, the benefits and costs are measured from the point of view of the whole country while a financial analysis measures only the benefits and costs relevant only to the investors or owners of the project.

Another area of difference between both is that instead of relying solely on accounting techniques to measure expenditures and costs as in the case of financial appraisals, the economic evaluation requires the use of economic techniques of measurement to supplement the accounting framework. However, to extend the financial appraisal into an economic appraisal we need to obtain answers to a sense of questions that are a continuation of those already outlines above. The questions covering the economic appraisal of expenditure are:

1. What is the magnitude of the differences between the financial and economic volume of those variables which are affected by government regulation and control or are subject to taxes, tariffs and subsidies?
2. What is the magnitude of the differences between the financial and economic values of those variables which are affected by other imperfections is the factor and product market (e.g. labour unions and restrictive trade practices)?

3. Does this project produce a position that meet the present values when it is evaluated at a discount rate that reflected relevant cost of capital form the stand point of the economy as a whole?
4. In order for the appraisal to indicate that the project is economically viable, what proportion of the more uncertain economic adjustments must be included?

It should be understood that before that adjustments outlined in questions 1 and 2 can be measured with a satisfactory degree of accuracy, the basic principles of economic evaluation must be clearly understood by the analyst? However, it must also be emphasized that all these adjustments are made to the basic financial data of the project and thus it should always be relatively easy to check the various steps in the methodology which transform the financial data into an economic appraisal.

Indeed before we know whether a project is likely to improve the economic well being of a country, we must know the opportunity cost of the resources it uses. For instance, if a project does not have an economic return equal to the opportunity cost of government funds, it does not automatically imply that the project should not be undertaken. The project, in this light, may also lead to net social benefits which can be quantified (but not necessarily measured in monetary terms) and which may be viewed by the decision makers as being worth the sacrifice of economic output that the project entails. For example, the project might distribute income to a group of whom the government is very anxious to help relative to others in the country. It is here that an important factor must be noted. A project may distribute income to a desired group and at the same time, it may increase the income of those that are not favoured. Therefore, bother of these outcomes must be noted for the decision makers to determine the overall attractiveness of the project.

3.7 SOCIAL MODULE

Here we have another module. The social module is concerned with the identification and, wherever possible, the quantifying of the extra economic impacts of the project. These include the impacts of this project on the well being of particular groups in society since seldom does a project benefit everyone in a country proportionally. Political factors should be identified as well as longer run impacts of the project on the community, which may not be reflected by changes in income. While this aspect of the appraisal may be less precise than the financial or economic analysis of a project, the social evaluation will generally be tied to the same factors that make up the financial and economic appraisals to be meaningful. The sets of questions that an analyst should ask under this module are:

1. What social objectives of the government could this project potentially assist in attaining?
2. Who are the beneficiaries of this project and who is expected to bear the costs?
3. In what ways would those who benefit from the project receive those benefits and how would those who bear the cost pay?
4. What other political or social impacts would this project generate? How?
5. By what alternative way (and at what costs) could the government obtain social results similar to those expected from the project or programme?

However, you must bear in mind that there two very important principles in evaluating the social impact of a project:

- a. the reasoning should be clear as to how this project will produce the desired social impacts
- b. as the government is usually undertaking many projects and programmes to reach its social objectives, we must compare the cost effectiveness of this project with at least a bench mark of the costs which are incurred by the other policy instruments available. Only if this project is as cost effective as other projects and programmes in achieving the social objectives should an additional benefit be attributed to it.

Most importantly, you must remember that the set of questions which have been outlined for a financial – economics – social appraisal of a project makes it clear that its aim is to categories costs and benefits from the point of view of society as a whole.

- a. some costs and benefits will be financial and directly generated within the project,
- b. others will be identifiable but measured and/or valued with some degree of uncertainty. In particular, we should not be misled by the apparent simplicity of the net economic or social presence expressed as real numbers.

3.8 FEASIBILITY STUDY

Now that you have seen all the modules necessary to be followed in a pre-feasibility study, it is necessary to also consider what follows. After completing all the modules of the pre feasibility study, the project must be examined to see if it shows promise of meeting the financial, economic, and social criteria that the government has set for investment expenditure. A sensitivity analysis must be made on the project to identify the key variables which determine its outcome.

You should remember that the function of the feasibility stage of an appraisal is to improve the accuracy of the measures of key variables if the project indicates it has the potential for success.

It is at the end of this stage that the most important decision has to be made in the order to know whether the project should be approved. You will agree that it is difficult to stop a bad project once sizeable resources have been committed to prepare the detailed technical and financial design of a project, it takes very courageous public servants and politicians to admit that it was a bad idea.

3.9 THE DETAILED DESIGN STAGE OF A PROJECT

An appraisal is the point where the accuracy of the data for all the previous modules is improved to the point where an operational plan of action can be developed. You should understand that not only is the physical design of the project completed at this stage, but the programme for administration, operating and marketing is finalized.

When this process is completed, the project is again reviewed to see whether it meets the criteria for approval and inception. If it does not, then this result must be forwarded to the appropriate authorities for final disapproval or rejection.

Exercise 5.3

- (i) what are the principles involved in evaluating the social impact of a project?
- (ii) Describe briefly the detailed design of a project?

4.0 CONCLUSION

In this unit, we have learned that pre-feasibility is an essential component of project planning design and implementation. The unit must have taught you how to assess the overall potential of a project and the necessary criteria to follow in order to come to this decision. You must however, note that pre-feasibility study demands an integrative approach which must combine various combinations – economic social, political, manpower and administrative etc – It is also important for you to bear in mind the fact that the pre-feasibility stage is the foundation to all other stages of any project and as such it must be planned and executed with utmost objectivity and sincerity of purpose.

5.0 SUMMARY

What you have learned in this unit is the nature, characteristics and contents of a pre-feasibility study. The unit has also introduced you to the six basic appraisals to be considered in packaging the pre-feasibility study. In addition, the unit has indicated that the pre-feasibility study is a step that must be followed in writing the feasibility study. In subsequent units, you will be taught on other stages of project design and implementation.

6.0 FURTHER READING

- (i) Abubakar, H. I. and Nze, F. C. () “Guidelines To Project Evaluation Analysis and Management” (A document prepared for the Niger State Local Government and Cooperatives Minna)
- (ii) Clifton, D. S. and Fyffe, D. E. (1997) “A Wiley-inter science publication” – John & sons New York.
- (iii) Kayode M. O. (19979) The Art of Project Evaluation (Ibadan University Press)

7.0 TUTOR MARKED ASSIGNMENT

- (a) Define Pre-feasibility study of project?
- (b) List the pre-feasibility module of a project?
- (c) Analysis the economic module of pre-feasibility study

UNIT 6

Conducting Feasibility Analysis

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Preparation Stage
Analysis Stage
Evaluation and Decision Stages
Project Implementation Stages
Project Designing and Construction
Project Feasibility Analysis Flow Chart
Conclusions
Summary
Further Reading
Tutor Marked Assignment

1.0 Introduction

In this unit, you will learn about the feasibility study. The unit will start by providing you with a working definition of a feasibility study. The unit will also explicate the nature of the feasibility study. As you progress through the unit, you will learn the basic elements which define and characterize the feasibility study. You will also learn the various stages of the feasibility study which represents the strategic study which represents the strategic planning, conception and anticipation of project implementation.

2.0 Objectives

The end of the unit, you should be able to.

- Define and understand what a feasibility study is.
- Recognize the strategic importance of feasibility study in project implementation.
- Explain the elements of a feasibility study.
- Discuss various stages which a feasibility study goes through.

- Construct diagrammatically the stages in feasibility study.

3.1 Definition

A feasibility study can be seen as the investigation to determine the viability, desirability or practicability of an undertaking. We can also take feasibility study to mean the possibility that is based on an idea which asks the fundamental question as to whether or not the project will work after an adequate time to gain necessary knowledge of the project has been given.

In any feasibility study, you must be able to ascertain the profitability of success or failure of the proposed programme which may be a new or an existing enterprise.

3.2 The Nature of Feasibility Study

You probably know that different variables determine the success of failure of every project. Therefore, any feasibility study must explore every alternative available in determining the social, economic and political climate favourable for active and effective implementation of the proposed project. You may now see a feasibility study as the forecast of things that will most likely occur when the project becomes operational. The feasibility study will tell you the complete story of the reason, time, and means of a proposed project.

- i. Financing is available.
- ii. Local services to support the project are available.
- iii. Raw materials can be readily sourced.
- iv. Social consequences are acceptable.
- v. Political support, if needed will be forthcoming.

3.3 Elements Of Feasibility Studies

As you must have realized, a feasibility report is expected to provide specifications, figures and perception on the project to be embarked upon. It therefore seeks to provide answers to question which are likely to be raised along major elements. Such questions include:-

- i. What is the nature of the project, what will it produce, on what scale?
- ii. How much money will be needed to get the project started and run; and what will be the sources of such funds?
- iii. What benefits will be the project bring about, will it be profitable to the owner, will it benefit the economy and;
- iv. What arrangements have been made to get the project started and to ensure its profitable operations?

In answering these questions, fourteen fundamental elements must be considered.

These are:

3.3.1 The Project Background

This will comprise its historical background that is all relevant information about the project idea, scope and location as well as the fast history of the education enterprise anticipated future trends in the organization and the economy. This element also takes into consideration government control or regulation on the education institution control or regulation on the education institution. Also as part of background studies, you have to know if the project is completely new or if it is an expansion. If new, the background study should be able to give reasons for proposing it, major constraints or incentives to enter the organisation. On the other hand, if the project is an expansion questions relevant to be asked will be:

- Did the initial study recommend it?
- What justifies the expansion?
- Is there any relationship between the first phase and the expansion?

Evidence of the past performance of the project must also be provided. Under the project background, the following additional information need to be provided on the organization or project:

- i. The name of the institution.

- ii. The type of ownership.
- iii. The share capital.
- iv. The Board and Management Team,
- v. The major shareholders.
- vi. The chief executives.

3.3.2. Operational Structure

To ensure effective management of the project, we have to put up a well structured organization. In that light therefore, the following details about the structure of the organization have to be provided:

- The way and manner institution will be managed along the various stages of the project.
- The structure of the organizational structure – is it going to be hierarchical.
- The specification of responsibilities must be clearly spelt out to avoid chaos and wrangling.
- The qualifications of the personnel and training programme must also be considered.

3.3.3. Market Prospects

You should note that market survey findings are so important in the launching of new product that such a study is often carried out as a precondition for the preposition of a feasibility report. The market studies can be made separate or as a segment of the overall feasibility study. Market prospects should provide the following information in the study.

- level and nature of competition in the market – specifying number of competitors..
- Size, geographical spread and the market share of competitors in the market must be stated.
- Product brands.

- Uniqueness of products/services rendered by competing institution.
- Degree of responsiveness of the society in terms of price changes,
- Religious beliefs income level and changes as well as tastes.
- Size of the demand.
- Projected market share of the services.
- Future demand – taking into account future growth rates, current and future market prices.
- Structure and level of the supply side of education industry closely linked in analysis with demand projections (i.e. Private educational institution).
- Proper identification of leading firms in the industry and their marketing capacities and strategies.
-

Exercises: 6.1.

1. Explain the importance of project background.
2. What structures will you put up to ensure effective management of the project.
3. List the information that market prospect should provide.

3.3.4 Types Of Technology

You have to relate the proposed project to existing technology. A potential investor needs to investigate adequately the following before a final decision to embark on the project is taken.

- The source(s) and unique nature of the technology.
- The operational cost of the technology.
- The advantages and disadvantages and disadvantages of the proposed types of technology.

- The possibility of such technology being applied in the particular environment bearing in mind, for example, the availability of technically qualified manpower locally to operate particular machines.

3.3.5 Sources Of Inputs

This is another important element that you will need to bear in mind. The Nigerian laws make this aspect very important in any feasibility study/report because the survival of any production process depends on regular and adequate supply of inputs.

You need to pay particular attention to the following considerations while planning for input.

- Term of purchase or supply.
- Sources of supply.
- Anticipated fluctuations in prices for a reasonable period of time.
- Method of delivery and storage.
- Cost of transportation and storage.

3.3.6 Sales Strategies

Sales strategies involve distribution channels, sales methods, packaging and related sales activities. As part of your study, the following should be clearly spelt out:

- Types of channel of distribution the organization intends to use.
- Definition of geographical areas to be covered in the sales effort..
- Determination of location of storage depots, e.g. Communication quality discount for the delivery, etc.
- Determination of incentives free delivery etc to both buyer and sale staff.
- Are the strategies applicable to government owned educational institution in your country?

3.3.7 Capital Investment Structure

Here, a well calculated cost estimate must be carried out taking into consideration the variable both in the present and future. Such total cost package will include:

- Total cost of the project.
- List of all machines and equipment cost.
- List of all other items and their cost such as working capital, preliminary expenses, etc.

3.3.8 Financial Structure

You would have noticed from the lecture so far that a well laid out programme of the enterprise requires a strong financial base on which to start and continue successfully. An ideal financing plan would call for the following information:

- The proportion of local investment to be raised through the short term, medium term and long term loans.
- Evidence of loans already secured or letter of interest by a bank to provide whatever loan.
- Proof of the owners contributions.
- Term of loan already secured or about to be secured.
- Documents in respect of the above requirements, where applicable, should be attached to the feasibility report/study.

3.3.9. Financial Projections

There financial projections which should cover a period of at least five years should touch on the following financial statements.

- The cash flow statement which deals with sources and application of funds.
- The profit and loss accounts which deals with income and expenditure over a period of time.
- The balance sheet – which summaries the balances of assets and liabilities on a particular date.

- It is also important to provide information on:
- Profit margin
- Returns on investments
- Capital employed
- Dividends declared and paid
- Earning per share, etc.

3.3.10. Socio Political And Economic Factors

Socio-political and economic factors have significant implication on the performance of an economy and the various industries. Such factors must be carefully analysed particularly if the proposed project involves foreign participation. Therefore, effects of the existing fiscal and monetary exchange limitations, nature of the political and social climate must be put into consideration.

Exercise 6.2

1. What innovation is expected for an ideal financial plan?
2. What financial statements are expected from financial projects?
3. What is the relationship between socio-political or economic factors on the various industries?

3.3.11. Assumptions

It should have been clear to you by now that feasibility study is based largely on assumptions. Such assumptions when made should be clearly stated and explained so as to know when certain assumptions have been overtaken by events. There is a tendency for beginners in preparing feasibility reports to make assumptions that are far fetched and often noticed in the report preparation.

What assumption will you make if you were to build a private university in future?

3.3.12 Data Verification

Particular attention should be given to the generation, analysis and verification of relevant data to be used in the report.

3.3.13 Sensitivity Analysis

You should note that change is constant in any project implementation on scheme. Therefore, due to some constant changing variables in the economy such as change in income level, taste and preferences of consumers, government regulations etc, it is necessary to carry out a sensitivity analysis to reflect the effects of changes in key variables on the viability of the project.

3.3.14 Overall Assessment Of The Project

There should also be an overall assessment of the project which must reflect the following:

- The expert findings based on the entire report preparation.
- The expert's recommendation as to the feasibility/viability or non-feasibility/non viability of the proposed project. An expert worthy of his reputation should be bold enough to advise a client honestly about when a project is feasible and viable and when it is not based on his detailed and honest analysis.

Exercises 6.3

1. Explain sensitivity analysis as relates to project?
2. What do you expect in the document of assessment of a project?

3.4 Stages Of Feasibility Study

In this section, you will learn that the analysis of a project involves a certain number of stages during which the various elements of the project are prepared and scanned in order to reach decisions. These stages are:

3.4.1 Identification Stage

This is the starting point of a project analysis. This stage also established the objective to be attained by the project. This objective may be to prove that it is possible and desirable to add a piece of equipment to the existing plant to add more classrooms to manufacture a certain product or group of products or to utilize certain resources.

3.4.2 Preparation Stage

In this stage, a decision must be made as to whether it is advisable to examine in detail the feasibility of the project and if so, to define the scope and estimate the cost of subsequent work to ensure that the project is of sufficient interest in the technical economic plane to justify an in-depth study that is that a feasibility solution can be anticipated.

This stage should include:

- A description of the market.
- An outline of training process and information concerning availability of main human and material resources.
- An estimate of necessary investment and cost of operation.
- An approximate estimate of profit.
- Statement of anticipated major problems and tasks.

3.4.3 Analysis Stage

What is of importance at this stage is that the various alternative in marketing, technology, and other considerations must be studied. For a particular project, you may notice that there may be more than one possible technology to evaluate, and such factors as plant size, capital availability, availability of raw materials as well as labour skills and availability should be considered.

The analysis of the feasibility of a project you should note, can be conducted at different levels of effort with respects to time, budget and personnel depending on the circumstances. A complete study of this stage contains a market, technical and financial analysis and is referred to as an economic feasibility study.

3.4.4 Evaluation And Decision Stage

Decision as to whether or not the project will be implemented must be made at this stage. For the institution, the studies conducted during the analysis stage of the project provide an assessment. And if positive results are obtained, the organization, if seeking financing, will want to prepare an investment proposal. The planner or government official, however, having obtained positive conclusions from the economic feasibility study, will want to evaluate the projects social profitability.

Social profitability analysis, it must be pointed out, is an evaluation of a project's contribution to the economy and it is primarily the concern of the government loan officer or planner. The techniques used to determine social profitability range from the very simple to the complex.

3.4.5 Project Implementation Stages

The stages of project implementation are:

- i. Contracting.
- ii. Project designing.
- iii. Selection of materials and
- iv. Construction.

Contracting: This is a method of implementation. At this stage, the project must be defined as contracts.

3.4.6 Project Designing And Construction

Here, the installation must conform with technical specifications and times schedules specified in the contract. Contract specifications should cover various activities such as preparation of plans and detailed technical studies, construction drawings, site development, construction work, deliveries, erection, tracts, etc. It is important for you to note that the drawing up of contracts does not always precede the preparation of plans and construction.

3.4.7 Project Feasibility Analysis Flow Chart

The project feasibility analysis flow chart briefly summaries the feasibility study as shown in Fig. 10.1.

Space for Chart

Fig. 10.1 Project Feasibility Analysis Flow Chart.

4.0 Conclusions

This unit on project feasibility has discussed the nature and characteristics of project feasibility which is defined as the investigation to determine the viability, desirability or practicability of an undertaken. In the unit, we have seen that a project feasibility must be subjected to rigorous and objective processes of validation by looking at its relevance and desirability. In the unit too, you have learned that the project feasibility study lays the foundation for project implementation. You will have noticed that of necessity, the project feasibility must be sufficiently flexible through the implementation stages.

5.0 Sumamry

In this unit, you have learned that a feasibility study is the strategic planning that serves as the instrument with a project is conceived and planned. The unit has provided you with a working definition of the concept of feasibility study and it has also spelt out the basic elements of a feasibility study. Importantly too, the unit have revealed that a feasibility study has to go through various stages which are mutually interdependent.

6.0. Further Reading

Ekpenyong B. D. (1993) Fundamentals of Project Analysis: An Integrated

Approach. Heinmann Educational Books Nig. Plc

David S. C. and David E. F. (1979) Project Feasibility Analysis: A guide to Profitable New Ventures. A weekly - Interscience Publication John Wiley and Sons New York.

7.0 Tutor Marked Assignments

1. List the elements of feasibility study.
2. Analyse the stages is project feasibility.

MODULE 3

UNIT 1

HUMAN RESOURCE DEVELOPMENT: IMPLICATION FOR PROJECT MANAGEMENT

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3.7	Human Resource Development And Project Management
4.0	Conclusion
5.0	Summary
6.0	Further Reading
7.0	Tutor Marked Assignment

1.0 Introduction

In this unit, we shall be examining the interplay between project management and human resource development. We shall begin by saying that one of the most important factors that affect the success of Educational project is its human resources. It is unimaginable to find any problem of education that does not involve people – can you think of any? Educational procedure is affected by people who are in turn affected by management decision.

In this unit therefore, we are going to discuss the human resource concern, explaining its policies and practices and how these can affect important

organizational behaviour outcomes. Specifically, we are going to discuss selection practices, training development programme etc.

2.0 Objectives

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

1. Identify the key skills for effective training
2. Contrast job description with job specification
3. Discuss method of training
4. Explain career development
5. Relate human resource development with project management.

3.1 Selection Practices

The objective of effective selection in any organization is to match individual characteristics, (ability, experience etc) with the requirement of the job. In an effort to achieve the right individual job fit is to assess the demands and requirements of the job. This process is known as Job Analysis.

3.1.1 Job Analysis

This involves developing a detailed description of the tasks involved in a job, determining the relationship of a given job to other jobs and ascertaining the knowledge, skills and abilities necessary for an employee to perform the job successfully.

The following are some job analysis methods:

Observation method, individual interviewed method, group interview method, structured questionnaire method and technical conference method. The information gathered by using one or more of these job analysis methods will enable the organization to create a job description and job specification scheme.

3.1.2 What Is Job Description And Specification?

We can define job description as a written statement of what a job holder does, how he does it, and why he does it. The job description should accurately portray job content, environment and conditions of employment. Job specification, on the other hand, can be defined as the minimum acceptable qualification that an employee must possess to perform a given job successfully. The process also identifies the knowledge, skills and abilities the characteristics of the job but job specification identify characteristics of the successful job incumbent.

3.1.3 Selection Devices

Selection device is a method or instrument for obtaining information about job applicants on which can help the organization to determine whether or not the applicant's skills, knowledge and abilities are appropriate for the job in question. Below are some of the selection devices that can be used by any organization: application forms, interviews, employment tests, background check and personal letters of recommendation. Each of these will now be discussed in turn.

3.2.1 Interview

You are no doubt aware that the interview continues to be the most frequently used in any organization to differentiate candidates. This makes it to carry a great deal of weight because not only is it widely used, but its results also tend to have a great amount of influence on selection decision.

You should also note that the unstructured manner in which the selection interview is frequently conducted affects the score rating of the candidates. The unstructured interview is short in duration, made up of random questions and has been proven to be an ineffective selection device. It is even generally believed that the data gathered from such interviews are typically biased and often unrelated to future job performances.

In other words, we should use standardized set of questions, providing information and standardizing the rating of the applicants' qualifications, the variability in results across applicants is reduced and validity of the interview as selection devices is greatly enhanced. In spite of the weakness above, evidence indicates that interviews are most valuable for assessing applicants' intelligence, level of motivation and interpersonal skills.

3.2.2 Written Test

Typical written tests assess intelligence, aptitude, ability, interest and integrity of the applicant. However, if we take a look at our society nowadays, it will be discovered that this test is unpopular because it is characterized by discrimination such that many organizations cannot validate such tests as being job related. All said and done, the written test is a particularly good predication for jobs that require cognitive complexity.

3.2.3 Performance Simulation Test

This is a logical way of finding out if an applicant can do a job successfully by having him or her do it. Performance simulation tests consist of working sampling and assessment centres.

Working sampling is creating a miniature replica of a job to evaluate the performance abilities of job candidates while Assessment centre on the other hand is a set of performance simulation tests designed to evaluate a candidate's managerial potential. Working sampling, compared with for instance written aptitude and personality tests, has proved to be very reliable. On the other hand in Assessment Centres, line executives, supervisors and trained psychologist evaluate candidates as they go through two or four days of exercises that formulate real problems that they would confront on the job. This strategy has demonstrated results that predict later job performance in managerial position. Do you know any of such centre in Nigeria? Will you advocate for this kind of centre to be established in Nigeria?

3.3 Skill Categories

When an applicant has been offered the job and when he has worked, there is need for him or her to develop his skills further by attending seminars, workshops and other forms of formal training. The quest by institutions to measure up to challenges of technological developments and other forms of scientific changes has motivated them to invest large amounts of fund into the training and recruitment of their staff. Skills can be divided into three broad categories. These are basic literacy, technical, interpersonal and problem solving.

3.3.1 Basically Literacy

This emphasis the basic knowledge of reading and writing skills. As a matter of fact, this is the first and foremost skill that individuals must acquire before moving ahead.

3.3.2 Technical Skill

This training is applicable to jobs that you call white-collar or blue collar jobs. The training is aimed at upgrading and improving an employee's technical skills. You must know that job changes to meet changes in technology and improved methods.

3.3.3 Interpersonal

Interpersonal training involves how an individual worker can become a better listener, communicate his idea more clearly and how he can become a better team player. Although some of you have excellent interpersonal skills, some require training to improve theirs. It is important for you to realize that one of the fastest growing areas of interpersonal skill development is diversity training which focuses on increasing awareness and building skills.

3.3.4 Problem Solving

This skill is aimed at sharpening your logical reasoning and problem-defining skills. It also helps you to develop the abilities to assess conversation, develop alternatives, analyse alternative, and select solutions. This strategy will help employees who perform non-routine tasks to solve problems on the job.

3.4 Training Methods

There are different methods for training employees. While some because of its cheapness prefer on-the-job-training, others because of complex demand for certain tasks and skills prefer training outside the work place. We shall outline some methods for training employees:

3.4.1 On-The-Job-Training

This method involves two things:

- i. Job rotation which involves lateral transfers that enable you to work at different jobs
- ii. The understudy training/Assignment. This involves the employee working under the observation of an experience worker who acts as model for the employee to emulate.

3.4.2 Off The-Job-Training

Under this, there are a number of off-the-job training methods that as a manager, you may want to make available to employees. The most popular ones are classroom lectures, videos and simulation exercises. The classroom lectures are more well suited for conveying specific information to employees. This can be used effectively for developing technical problem-solving skills. Video can also be used to explicitly demonstrate skills that cannot be easily presented by other methods while simulations exercises

(such as case analysis, experimental exercise, role playing and group interaction session) can be effectively conducted by consultants or in-house personnel.

Exercises:

1. List the various skill categories.
2. Analyse off-the-job training as it relates to organization development.

3.5 Organisational Responsibility

The essence of a progressive career development programme is built on providing support for the employees so as to continually add to their skills, abilities and knowledge by providing the following supports:

- clearly communicating the organisation's goals and future strategies to the employees.
- Creating growth opportunities in the areas of interest and professionally challenging work experience.
- Offering financial assistance when the need arises
- Providing the need for employees to learn.

3.5.1 Employees Responsibility

Employees should manage their own career like entrepreneurs managing small business. The successful career will be built on maintaining flexibility and keeping skills and knowledge up to date. The following suggestions are consistent with you as a career employee:

- be honest to yourself
- manage your reputation
- build and maintain your network contacts
- you must keep current by developing your specific skills and abilities and that are in high demand
- you must balance specialist and general competences
- you must document your achievements without being proud about them.
- you must keep your options open by hoping for the best.

3.6 Performance Evaluation

Performance evaluation serves various purposes in organizations. Your management uses evaluation for general human resource decisions. Evaluation provides input into such important decisions as promotions transfer and terminations. It also identifies training and development needs

performance because evaluation can be used as a criterion against which selection and development programmes are validated. Evaluation also serves the purpose of providing feedback to you on how the organization views your performance. Decisions on reward allocation for example who gets the next pay increase and other rewards are frequently determined by performance evaluation.

Exercises:

1. Evaluate organizational and employee responsibilities?

3.6.1 What Should Management Evaluate?

The criterion which management chooses to evaluate when appraising workers / employees performance will have a major influence on what employees do. Among the most popular set of criteria are: individual task outcomes, behaviour and traits.

a. Individual Task outcomes.

This is when management or the organization evaluates the outcomes or outputs of your tasks.

b. Behaviour.

Although it is difficult to identify specific outcome that can be directly attributable from the actions of individual employees, the performance of the group may be readily evaluated with the contribution of each worker.

c. Traits. This is the weakest set of criteria but it is still widely used organizations because other criteria are far removed from the actual performance of the job itself.

3.6.2 Who Should Evaluate An Employee's Performance?

- immediate supervisor
- peer
- self evaluation
- immediate subordinate
- the competence approach: 360 degree evaluation

All of these evaluation strategies afford management the opportunity to generally rely on feedback from co-workers, parents, society and subordinate. It also affords the organization the chance to give more sense of participation in the review process and gain more accurate reading of your performance.

3.6.3 Methods Of Performance Evaluation

An employee, there are specific methods and techniques for evaluating performance that you will learn in this section.

a. **Written Essays:**

This is the simplest method of evaluation which involves writing a narrative describing your strengths and weakness, past performance, potentials as an employee, and suggestions for the improvement of the organization.

b. **Critical Incidents:** Here, the evaluator's attention is focused on those behaviours that are key in making the difference between executing a job effectively and executing it ineffectively.

c. **Graphic Rating Scales:** This is an evaluation method whereby the evaluator rates performance factors on an incremental scale. For example, a set of performance factors, such as quantity and quality of work, depth of knowledge cooperation, loyalty, attendance list and rates each on incremental scale.

d. **Behaviour Anchored Rating Scales.**

This method combines major elements from critical incidents and graphic rating scale approaches. The appraiser rates the employee based on items along a continuum, but the points are examples of actual behaviour on the given job rather than general description or traits

e. **Multiperson Comparison.**

This is a relative rather than an absolute measuring device in which an evaluator rates the performance of individuals against the performance of others. There are a number of comparison methods among which, we will discuss the two most popular. These are:

i. **Group order Ranking:** this is an evaluation method that places employees into a particular classification such as quality.

ii. **Individual Ranking:** This is an evaluation method that compares each employee with every other employee and rates each other as either superior or the weaker measure of the two based on the achievement of the employee, the supervisor allots scores.

3.6.4 Potential Problems

A number of potential errors can creep into the process of evaluation when an organization seeks to make performance evaluation process free from personal biases, prejudice, and idiosyncracies. Some of these are:

a. **Single criterion.**

This is when, instead of a combination of criteria, the evaluator uses one criterion to assess the performance of an employee.

b. **Linency Error.**

This is the tendency to evaluate a set of employee too high (positive) or too low (negative).

c. **Halo Error.**

This is the tendency for an evaluator to allow the assessment of an individual on one trait to influence his/her evaluation of that person on the other traits.

d. Similarity Error.

This is when an evaluator rates other people by giving special consideration to those qualities that they perceive in themselves or giving special consideration when rating others to those qualities that the evaluator perceives in himself or herself.

e. Low Differentiation.

This is the situation when the pattern of evaluation remains the same in spite of an evaluator's social differentiation or evaluator's style of rating behaviour.

f. Forcing Information to march non-performance criteria.

This is when evaluation is based on factors (e.g seniority) other than performance

3.6.5 Ways Of Overcoming The Problems

- a. Use multiple Criteria. In evaluation a combination of criteria instead of a single criterion should be used. The more complex the job, the more criteria that will be needed to evaluate.
- b. Emphasis Behaviour Rather than Traits. Behaviour is a more reliable factor for evaluation than traits. Such traits as loyalty, initiative and courage may not?
- c. Document Performance Behaviour in a Diary. The evaluator may anticipate the process of evaluation by keeping a diary of specific critical incidents for each employee. Evaluation tends to be more accurate this way.
- d. Use Multiple Evaluators. As the number of evaluators increases the probability of attaining more accurate information also increases because the average scores of the evaluators will form the basis of evaluation.
- e. Evaluation selectively. The evaluators should evaluate only in those areas in which they have some selective expertise.
- f. Train evaluators. There is no alternative to good evaluators. To make this possible, there must be room for training of evaluators so that accurate rates can be obtained.
- g. Provide Employees with due process. Employees should have the awareness of the parameters for evaluation. This is possible if the following are upheld.
 - i. Individual workers are provided with adequate notice of what is expected of them.
 - ii. All relevant evidence in any violation is aired in a fair hearing so that affected individuals can respond appropriately.

- iii. The final decision should be based on the evidence and should be free from bias.

3.6.6 Providing Performance Feedback

Employees should have a way of knowing their rating so as to counter their often erroneous over-evaluation of themselves.

3.6.7 Human Resource Development And Project Management

One of the most important factors affecting the success of a project is its human resources. From experience, you would have discovered that no matter how viable a project is, if there are no skilled personnel, the implementation of the project will be difficult if not outrightly impossible. As such, as we have seen, it is essential to make provision for the development of human resources on appraising a project. This is true both for where there is scarcity of skilled people as it is for where there is relatively availability of the required personnel because people are dynamic and are changing constantly as they acquire new experiences. It must be pointed out that the development is not just once but on going.

4.0 Conclusion

An organization human resources policies and practices represent important forces for shaping employee's behaviour and attitude. Human resource development form the central part of management because no matter how viable a project proposal is unless there are well trained personnel the project will not likely be executed properly and successfully.

5.0 Summary

In this unit, we have dealt human resource development and its implication for educational projects. Human resources policies and practices have been established in the course of our discussion. We have also seen that job specification and description are important documents for guiding the selection process. We have also seen that for successful project development and completion in education there must be continuous management development.

6.0 Further Readings

Robbins S.P. (1999) Organisation Behaviour Concept – Controversies – Application Prentice Hall of India Private Limited (U.S.A)

Ekpenyong B.D. (1993) Fundamentals of Project Analysis and Management: Heineman Educational Books Nig. Plc.

7.0 Tutor Marked Assignment (TMA)

1. Discuss the selection practices in Human resources development.
2. Analyse performance simulation text.
3. Explain any positive association between HDR and Project Management.

UNIT 2

ASPECT OF PROJECT APPRAISAL

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1.0	Introduction
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3.0	Aspect of project Appraisal
3.1	The technical study
3.1.1	Financial Analysis
3.1.2	Commercial Studies
3.1.3	Community Participation Study
3.1.4	Development projects: A Methodology
3.1.5	Project Management and Organization
3.1.6	Environmental Impact
3.1.7	Socio-Economic Benefits of Educational Project
4.0	Conclusion
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6.0	Further Reading
7.0	Tutor Marked Assignment

1.0 INTRODUCTION

We all know that every project we embarked on that is not properly appraised, may lead to abandonment and put us in debt so also is any education project. You should realize also that a properly appraised project is likely going to attract investors and support from government. This is one of the reasons why education projects are taken over by the government at times from the community.

From developmental point of view a soundly appraised project is often seen as one with guarantee that resources will not be wasted if the project is financed. You should not forget that resources to finance development projects are credits to be reimbursed in future- these credits, together with accrued interests on them, are a heavy burden to developing countries and are one of the origins of the controversial North – South economic imbalances.

In order to ease project implementation and reduce the risks of debts resulting from project financing, the appraisal should establish the period feasibility by means of an in-depth analysis of all its aspects in order to establish its

inability and consequently its acceptability is of paramount importance in appraisal of an education project.

So in this unit we shall be studying appraisal of a project in a detail.

2.0 OBJECTIVES

At the end of this Unit, you should be able to

1. Define project appraisal
2. To discuss the major aspects of project proposal
3. Develop a methodology for project appraisal
4. Explain the nature of project management and organization.

3.0 ASPECTS OF PROJECT APPRAISAL

The project appraisal is a detailed analysis of the following aspects such as:

Technical

Financial

Community participation

Organization and Management

Socio-economic benefits

Environmental impacts

Political risk/interference and projects and sustainability of projects.

3.1 THE TECHNICAL STUDY

The technical study is a key area both in project design and in project appraisal. It analyses the engineering of technical characteristics of the project including the design of construction and plants, the physical aspects of input and outputs, and the timetables of implementation. Major elements to be taken into account are project layout, technology use, equipment and civil engineering works. In a processing factory for instance. Questions to be answered are:

- What are the dimensions and the characteristics of the building housing the plant in terms of floor area, height and storage capacity? (Bills of quantities and drawings should be produced).

- Is water and power supply adequate?
- What are the equipment or machinery and accessories required and what are their specifications?
- What special skills are required to manage technically the project and how many unskilled labourer are required at full capacity?
- What are the technologies used and what benefits support its choice?
- What provision for maintenance or repair has been made?

You will agree that the nature of the project will determine the type of know-how required to obtain an adequate technical study of a project. The aim is to show that the project will work as designed, provided that funds to purchase the required materials are available. The issue of availability of funds is dealt with in the section of financial analysis.

EXERCISES 2.1

1. define project appraisal
2. List 7 aspect of project appraisal

3.1.1 FINANCIAL ANALYSIS

The financial analysis of a project aims at demonstrating that the project will not be hindered by financial problems. The financial study establishes the magnitude of costs of investments, production and overhead. Investment costs you will realize include obviously the costs for land development, technology, civil works. Plant, equipment and consultancy. The production costs cover such items as materials, energy and labour.

Besides the cost estimates, the financial study will indicate possible financing sources including the terms and conditions of credit. These refer to the type of loans, grants, or goods in barter deals, the length of the grace or disbursement period, the level of interest rate and the way loan is linked to purchase of goods.

The financial study is the basis for the working out of the budget requirement of the project. At the same time an assessment of project output and returns will be made: This will be the basic for evaluating the profitability of the project. It is very important for you to note that several methods for

assessment of the probability of the project are available. Although the most casually used is the interest rate of return, there are other methods including the present value, the benefit cost ratio, and the payback period method.

Project profitability depends on a comparison of cost versus reserves using realistic prices of materials, labour and outputs. These prices are analyzed in the commercial analysis.

3.1.2 COMMERCIAL STUDIES

The commercial study of a project deals with the analysis of the markets for inputs, materials, labour and products. The resources of inputs and their prices and the management of their supply are essential at this stage.

Annual cost of materials, manufactures, factory supplies, utilities and agricultural inputs are estimated at this stage. The established price for inputs and outputs is then the basis for calculating projects income, future earning, cash flows and balance sheets. The task of commercial appraisal is important because it enables the projects planner to predicts prices which are the basic assessment of financial results. When appraising commercial aspects of a project one problem often you will come to realize faced is the problem of prediction and forecast. In spite of modern forecasting techniques and projection of price, yields and output remains a challenging task, requiring ample experience.

A mistake usually made, for example is to over estimate the product targets. Especially, planners and politicians in the South are often too optimistic in seeing project outputs. Assuming that everything will work out perfectly is often taken for granted. You will of course agree that unfortunately, in the environment of a thirds world county, there are many unknown factors that increase uncertainty. Transport facilities are not reliable, supply of raw materials is irregular and not certain, Foreign exchange is insufficient to the extend that there is over reliance on import and the knowledge in educational techniques is often insufficient, and extension services inadequate. Under such circumstances, optimism in target setting only leads to a waste of resources.

The task of realistic target setting is difficult and should be tackled accordingly. One way is to consider three alternatives, the ideal situation, the normal trend, and the pessimistic scenario. The design should be based on the normal trends unless project, facilities for improvements of these trends are planned, only then is optimism justified. As far as costing is concerned, it is advisable to use current price and to include quantity and prices. Yields and output on project benefits should also be done.

Once the technical aspects are designed, and once financial and commercial analyses are completed, there is still an important issue to tackle; organization and management of the project, especially participation of the community in project implementation, which is the focus of the next subsection.

EXERCISE 2. 2

1. What are the necessary questions to ask in while embarking on technical analysis?
2. What is the different between financial and commercial aspects?

3.1.3 COMMUNITY PARTICIPATION STUDY

Even experience consultants often forget participation analysis. A participation study shows what incentives are provided to project participants (the target group) in order to show that they successfully play their role in the project. The project is of principal importance in developing countries where communities are often requested to supply labour, to change their customs or to contribute freely their labour force or sometimes, their savings, in order to make a project success.

Participant in a project can include project staff, suppliers, government official, politicians,. Workers, representatives and leaders.

All these institutions whose collaboration in the project is required such as banks, consultants, firms, contractors, and even villages should be given a special treatment in project appraisal.

But the most important of all project participants, and often the most forgotten by project expert, are the people sought to be involved in project implementation, especially in rural areas. These are often local communities who are generally the target groups expected to benefit from the designed projects. This is where the challenging issue of community participation starts.

How involved are your community in contributing to UBE construction work?

EXERCISE 2.3

1. What do you understand by community participation study?
2. List the different steps in a project development methodology

3.1.4 DEVELOPMENT PROJECTS: A METHODOLOGY

In this section you will introduce to five steps, which can be followed in ensuring the participation of the target beneficiaries of a project. These steps are:

STEP ONE: Familiarization and networking

Once the project area is determined, people who have a mutual interest in the project are identified and a network is established to enable relationships between them. People involved include village leaders, local school teachers, religious leaders, members of clubs or parent teacher association, village elders, influential men and women in local communities and local experts. In this step the data required for a preliminary analysis of the project is gathered.

STEP TWO: Identification of needs and priorities

Using local knowledge, an inventory of communities needs is made. Classification and priority is satisfying these need as established. At this stage, awareness of the problems and alternative ways of solving them are raised through seminars and campaign outside expertise is added at this stage.

STEP THREE: Agreement on priority needs and problem solving methods

Through discussions and meetings and guide by project experts, the project beneficiaries, organized in a network, agree on priority needs and on their

participation in implementation of the project to be designed.. This agreement includes methods of monitoring and evaluation, and form of contribution, which may be money, materials, labour, attendance of meetings, and involvement in monitoring.

STEP FOUR: Detailed design on the project:

The project expert design the detailed project in which agreement of beneficiaries on project objectives. Priority needs, chosen methods of problem solving and agreed participation are included. The project organization chart should indicate the position of the project beneficiaries.

STEP FIVE: Follow-up meeting and on-going evaluation

During execution, regular meetings are held between participant and project management. The aim of these meeting is to monitor and evaluate together, project implementation and also to carry out education of beneficiaries on a continuous basis through seminars and campaigns.

This methodology can be applied to community development projects like rural water supply, rural house, UBE Worker Education. Recent experience of project implementation especially in the sough has shown that successful projects are those which have been accepted and supported by the local community they are projects which have obtained moral, physical and financial contributions from these communities. It is therefore an important assignment, for whoever is designing or promoting a project, to imagine strategies to ensure effective community participation to project.

The project appraisal report should therefore show how efficient and effective community participation would be obtained. It has been proven, for instance, that one way of letting the rural communities realize that they have a role to play in project implementation, is to involve them right from the start in the project planning, process that is, through all the steps of the project cycle.

But more importantly, the key to success is to involve them in the identification of needs because, a project is an answer to people needs. Therefore, those who feel the need, can best establish the priority projects for which they can give their moral support, their labour, their money or other contributions.

In school projects such as expansion of classes, supply of rural housing, any project has a disturbing effect on the social life of the rural community. A well-planned project leads to the achievement of benefits to the target group. Since the negative effects of a project are expected to eventually be dwarfed

by social benefits, it is generally accepted that programmes with relevant social benefits to communities should be implemented as a priority.

However, you will really agree that the attitude of the beneficiaries could be negative because of lack of awareness of what to be done. In this case, community development agents have an important role to play, namely the one of educating the target group.

It is therefore advisable that the planning process of a process of a project starts right from community, It is also beneficial to the people that a project be “people centered” and not “technology centre” especially rural areas.

In addition, the project planner should make sure that incentives are provided to people so that they find it attractive to contribute to project execution. This should be studies in project appraisal. Once strategies to ensure peoples participation are planned, the problem of management and organization of projects become alleviated.

EXERCISE 2.4.

Do you have such arrangement in your village or town?

3.1.5 PROJECT MANAGEMENT AND ORGANIZATION

Without adequate management and organization, you should realize that no project can produce the expected results. It is thus essential that project appraisal makes a detailed analysis of project organization and management. This analysis should aim at answering the following questions;

- Is the organizational set up of the project adequate?
- Will the project be provided with competent personnel to manage it?

The first question is about the proposed organization chart of the implementing agency. This appraisal should study how to make the organization of the implementing agency adequate. This latter question aims at ensuring that adequate project staff can be recruited locally or else where, No matter how well planned the project is we all know that without adequate, appropriate and well qualified staff the implementation of the project will be hampered. So the problem of project staffing raises many other questions:

- Is the local manpower market rich enough to provide the project with the required personnel?
- If the personnel is available on the local market, can competent staff be recruited freely?
- Should the staff be recruited locally or not?
- What is the implication of recruiting project manpower from foreign countries?

The right answer to these questions is the one, which will result in the assurance that the project will start up, as planned, will be satisfactorily implemented and will operate continuously after the project period. You probably have discovered that many projects in developing countries stop just after the foreign project personnel returns home. Why does such a situation arise? This is among other reasons, because management's capability is taken for granted in such a way that even project appraisal would not pay enough attention to the managerial aspect of the project.

But even if the right staff is available their success will depend mostly on the institutional set up, which is the relationship between various organizations involved with the implementing agency. Appraising the project organization therefore includes appraisal of project related institutions like subsidiary companies, ministries, head quarters, banks, transport companies and others. Some of the questions to be answered by such an appraisal are:

- What are the main regulations or procedures to follow in order to obtain the services required by the project?
- What are the policies that could become obstacles to project success and which project design can alleviate these constraints?

When policies are too rigid, a policy change might be a condition for project viability. The project designer should investigate the acceptability of such a change.

Once the right institutions to facilitate project implementation are available, competent, responsible and committed managers should implement the

project. In practice, it is difficult to find managers of required qualities in developing countries.

Although a small number of highly qualified graduates from various universities and high training institutes can be found they often have insufficient experience to manage large projects. Government institutions usually absorb those with extensive experience or they are given pedical positions.

Thus, only few qualifies and experienced managers will take up senior management posts in development t project and only if adequate incentive scheme of incentives, these professionals will be inefficient and uncommitted.

Management appraisal should look into the allocation of resources to all project components involving cost of expatriate personnel. Too costly expertise should just not be hired if equally competent and less expensive local expertise are available. It is also advisable that equal incentives be given to equally skilled labour, irrespective of the country of origin of the expert in question. In universities, expatriate are usually employed in some departments e.g. medicine, in many countries, there is tendency to deny local experts sufficient incentives and there is therefore, an artificial shortage of competent managers.

Developing countries are partly responsible for this because of inadequate planning for personnel incentives, manpower, misallocation and political interference in management.

By political interferences in management is meant that the appointment of managers is often based on political interests, rather than competence. Managerial appointment should be a function of competence and commitment, not a function of race, tribe, creed or political opinion. Appraisal of management and organization of a project should be seen as very important because only adequate management will result in efficient project implementation, greater project benefits, and eventually harmonious development.

EXERCISE 2.5

Explain project management and organization?

3.1.6 ENVIRONMENTAL IMPACT

The environmental impact upon an educational project may be within the educational organization itself or from outside. We shall be discussing this in another unit; the impacts is therefore classified as internal environmental impact.

An organizations environment is made up of those institutional forces that are outside the organization and potentially affect the organizations performance. These forces of institution may be suppliers of project material contractors, government regulatory agencies public pressures group etc.

3.1.7 SOCIO-ECONOMIC BENEFIT OF EDUCATIONAL PROJECT

The socio economic aspect of schooling has been researched on from various countries especially in developing countries. From such findings we can infer that schooling was perceived as a burden on most families especially in the rural areas both because of the direct cost (fees and travel expenses) and the loss of the child contribution to household production and income .

So socio-economic variable must be properly undertaken and awareness campaign must be embarked on before any educational project as socio-economic factors has practical implication for education project especially for secondary or tertiary education.

4.0. CONCLUSION

In this unit, you have learned that project appraisal is an important component of project implementation and execution. You have also learned that appropriate project appraisal helps in the elimination of waste and helps to attract adequate funding through the assurance that it guarantees about the avoidance of wastage and duplication. Project appraisals, the unit has also revealed, helps in bringing about control and regulation in projects implementation. You will need to combine in sights gained in this unit with preceding units and integrate it into units that will follow.

5.0 SUMMARY

Thus this unit started by discussing the meaning and functions of project appraisal. You will have learned that in project appraisal feasibility study weighs the viability of the project with a view to determining acceptability. Project appraisals, the totality of all parameters affecting the project are considered. These include technical finance and the commercial aspects. In general terms, project appraisal, is the critical analysis of all feature of the projects for it success.

6.0 FURTHER READING:

Ekpenyong B.D. (1993) Fundamentals of projects analysis: An Integrated Approach (Heineman Educational Books (Nig. Plc).

Gittinger J.P. (1976) Economic Analysis of Agricultural Project. The John Hopkins University Press Baltimore and London.

Halidu I.A. and Festus C.N. () Guidelines to project evaluation Analysis and Management document paper prepared for the Niger state university for local government and co-operatives, Minna).

Ovwohwo Y.M. (1991) The Theory and practice of Education Planning in Nigeria. (Think Publishing Co. Ltd (Kaduna)

7.0 TUTOR – MARKED ASSIGNMENT (TMA)

1. How will you define project Appraisal?
2. What are the steps to take in involving the community in the education project in their locality?
3. Analyze the likely problem of project staffing?

UNIT 3

Project Implementation

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1.0 INTRODUCTION

Effective and efficient implementation schemes are essential for the successful execution of projects. You have however, probably witnessed the failure of most projects in Nigeria due to poor implementation. It goes without saying therefore, that implementation should play a fundamental role in the execution of a well designed educational project. You should therefore know that the successful implementation of any project will involve the understanding of the details in the process, and the recruitment, selection and placement of effective implementation about the scheme should in turn be equipped with detailed information about the objectives, activities, resources etc for achieving or realizing the project.

In this connection, we shall, in this unit be placing emphasis on the logical process in project implementation.

2.0 OBJECTIVES

At the end of this unit, it is hoped that you will be able to:

- Define implementation.
- Analyze the principles involved in implementation .
- Analyze the essential factors of implementation process.
- Explain the factors that affect the implementation of educational projects.

IMPLEMENTATION OF PROJECT

3.1 DEFINITION OF IMPLEMENTATION

Implementation can be defined as the activities carried out in the light of established policies or projects.

3.1.1 ESSENTIAL FACTORS OF IMPLEMENTATION

There is essential factors that can guide you in the implementation process.

They are identify to be :

- i Clarity and specification of the project to be implemented
- ii. The establishment of an effective implementation organization
- iii The identification of an effective implementation organization.
- iv A study of the environment within which the project is to be implemented.

I need to emphasize here that an adequate knowledge of the implementation environment and implementation organization are pre-requisites for effective project implementation (Igunnu 1991 quoting Oladipo 1963) buttressed the Ladipo's work by constructing an overall model for the implementation process. Also (Igunnu 1991 quoting Meters and Horn 1975), we all know that the path between policy independent variable which are in many cases hypothesized to be virtually interactive and objectives.

- i Policy standard and objectives
- ii Project resources.
- iii Characteristics of the implementation agency.
- iv Inter- organizational communication and enforcement activities.
- v Disposition of the implementation and
- vi Economic, social and political conditions.

The last variable is something of a catch – all category and generally may be see as equivalent to the concept of environment.

The policy variables are concerned with stated goals and available resources. The focus on implementing agencies embraces both formal and informal organization while inter-organizational communication and enforcement activities cover relationships within political system and with target

population and you should equally know that the focus on disposition of the implementors directs one to study the orientation of those who operationalize programme:

Exercises: 3.1

1. Define implementation of project
2. Explain the essential factors of implementation.
3. Analyze Meter and Horn's model of implementation.

3.2 PRINCIPLES OF IMPLEMENTATION

In this section, we shall consider five major principles of implementation. Although there are more, these five are considered to be the main principles that best illustrate the implementation of educational projects. In reflecting on the principles of implementation (materials, approach and beliefs), and the factor affecting implementation interact in any given educational institution as a system of variables.

3.2.1 YOU SHOULD ALSO KNOW THAT IMPLEMENTATION IS A PROCESS AND NOT AN EVENT.

It is self defeating for us to think of implementation as completing one task or event, forgetting about it and proceeding to the next one. You must admit that implementation occurs gradually or incrementally over time- usually for some years (for most significant innovations), during which time all factors must be continuously addressed by you.

3.2.2. ADAPTATION OF INNOVATION.

The innovation will get further adapted and modified during use. This may be either a good or bad thing depending on the adaptation and the solution but it should be noted that adaptation will happen. Adaptation is said to be a good thing if it improves the fit of the innovation to the situation, or if it leads to further development, specification or other improvements in the innovation. You must always use your expertise to adopt a good thing for further improvement of the project.

3.2.3. IMPLEMENTATION IS A PROCESS OF BOTH PROFESSIONAL DEVELOPMENT AND GROWTH.

You are to see this principle at once as a highly personal and a social experience. It is a personal experience because it is the individual who in the final analysis make change both in practice and in thinking. On the other

hand, implementation is a social experience because effective personal change can only occur in the content of the process of socialization.

3.2.4 IMPLEMENTATION PLANS INCORPORATE SEVERAL FEATURES.

We all know that most processes encompass more than one feature. Therefore, the institutional plan intended to guide action must incorporate several features. These features on the other hand, must be based on the true to the principles being discussed, and even more. Apart from this, the features must systematically address the three implementation outcomes.

3.2.5 YOU HAVE BEEN TOLD THAT 100% IMPLEMENTATION OF PROGRAMME IS NOT POSSIBLE AND MAY NOT BE NECESSARY

However, an effective implementation plan is one in which the process and outcomes positively impact on more people than they would be if such plans were done in other ways or left to change.. Indeed, from experience, I will like to tell you that in most cases, anew plan brings about more and better improvements than the previous plan. We may thus measure the effectiveness of a plan by comparing process made as a result of using it with previous approaches. We may not measure this in terms of whether such a plan solves all the problems – This may never occurs.

3.2.6 MASTERING PROJECT DOCUMENT

The project manager has the prime role in the process of project implementation as it is his duty to understand the project document. The project manager should study all details including project appraisal reports, drawings, maps, charts, bills of quantity, loan contract and various project – related agreements. It is important to point out that mastering project documents is a prerequisite for successful project implementation. Indeed, any attempt to implement a project that is not understood can lead to avoidable failure.

3.3 TASKS OF THE PROJECT MANAGER.

3.3.1 INITIATING FINANCIAL MANAGEMENT

One of the first tasks of the project manager is to make sure that project funds are timely and judiciously managed. He must open a bank account at

the nearest bank and design record books for expenditure. The financial regulations used by project staff must be prepared at the appropriate stages.

3.3.2 PUBLIC RELATIONS

As you have been told, a project is never a one man shoe. It involves people of various groups – the target population, project personnel, banks, government officials, party officials, elected representatives, suppliers, the union of workers, the legislatures, the media etc. Among these groups, the project appraisal report might have indicated the key project to be executed. However, if no such indication, is made, it is the responsibility of the project manager to identify the strategic persons that can help smooth project execution. It is also the duty of the project manager to establish public relations by ensuring that he clarifies the nature of links that should exist across the various levels of relationships and authority of the project.

3.3.3 ESTABLISHING PERSONNEL RECRUITMENT

To start with, it is pertinent to ask the basic question:

How will you determine personnel requirement in a given project?. You can answer this question by simply stating that a soundly prepared should, in the first place, establish the number and quality of staff required. The best way by which this task could be handled is for you to define job descriptions of all posts. After that had been done it becomes easier for us to define the number and quality of personnel needed. You should bear in mind that job definition should not be confined to the short term alone; it should, as a matter of necessity, be related to any possible future development.

Clear job definition or “tern reference” will make the task of personnel selection easy since candidate will be measured against the specification of the idea person. Once job descriptions are defined, the project manager will know how scarce or otherwise the required professionals are. This information is an important element in the planning of a realistic personnel budget. Once the personnel requirement is known and the demand for the required posts has been assessed, the manager can invite the candidates through an advertisement.

Exercises 3.2

1. List the principles of implementation
2. How will you determine personnel recruitment in a given project
3. What are the tasks of project manager?.

3.4 COMMUNICATION BETWEEN MANAGEMENT AND WORKERS

An efficient manager monitors the effect of motivation by communicating with his workers. We can assess whether or not the workers are happy. You will readily agree that there is a relationship between the mood of the workers and their outputs.

A second benefit of communication, as you may already know is to afford management opportunity of giving direction to employee through praise or constructive criticism while management can also receive positive pieces of advice or information.

Perhaps a third benefit of communication with workers is to keep the workers informed about project development. Failure to properly inform the personnel about the development of the project may lead to frustration which in turn will be to low productivity.

Meetings should also be held on a regular basis. Freedom should be given to employees to express their views at such meetings. Managers will be surprised at the level of ideas that can be generated at such meetings and the kind of motivation that employees can derive. Can you pause for a moment to imagine an establishment in which no meetings are held between the staff and management?

3.4.1 TRAINING OF PROJECT PERSONNEL

The feasibility study of any project should not only show the number and quality of personnel required, it must also indicate training requirements. Where the project report fails to mention the requirement for personnel training, the project manager should establish a training programme skills analysis should help the manager to identify the skills to be acquired by the project personnel through tailored short or medium term programmes.

We have discussed a number of motivators above. You will agree that a package of motivation of workers will ensure the success of he project. As a matter of rule, employees of the same status should be given equal treatment as far as compensation is concerned. Your experience in Nigeria will have seen that factors such as tribalism, nepotism, religious and corruption play an important role in treatment of personnel.

3.4.2 TREATMENT OF WORKERS

We have discussed a number of motivators above. You will agree that a package of motivation of workers will ensure the success of the project. As a matter of rule, employees of the same status should be given equal treatment as far as compensation is concerned. Your experience in Nigeria will have shown that factors such as tribalism, nepotism, religious and corruption play an important role in treatment of personnel.

3.5 TOOLS OF PRA (PUBLIC RELATION APPRAISAL)

In this section, you will be taught a number of concepts and tools which are necessary for the success of the PRA method and the focus of these tools is the local community. The aim is to involve maximally the beneficiaries in the learning process which is at the same time a development process.

In the PRA method, the following concepts and tools are used.

- Mapping and modeling
- Seasonal diagrams and calendars
- Wealth ranking
- Matrices, pair-wise ranking and scoring Venn diagrams
- Venn diagrams
- Transect walks
- Timeliness and trend analysis
- Team contact
- Triangulation and
- Knowledge square

Now let us see how each of these works.

3.5.1 MAPPING AND MODELLING

These methods are used to map out key changes over time especially on a year to year basis. They may be used to show for example, change in land use, soil erosion, tree or vegetation cover, income generation opportunity or outbreaks of epidemics such maps and models which are used in analyzing what has occurred over time in a given community are drawn by local people after a short training within the PRA process. Local materials for instance, sticks, stones, ashes, pebbles, tree seeds, grains and beads, are used in

drawing maps and models on the ground. These maps and models can be transferred on paper by researchers or local people with some literacy skills.

3.5.2 SEASONAL DIAGRAMS AND CALENDARS

By using pieces of stick, women, children and the elderly draw histograms on the ground to represent quantities and patterns of rainfall, agricultural activities, labour availability, periods of off farm employment and outbreaks of certain diseases.

3.5.3 WEALTH RANKING

This is a method used by local people to rank families according to relative wealth or well being. Ranking depends on the criteria used. Some of the objects that can be used include stone seed and fruits. The smallest of these for instance well represent the poorest household.

3.5.4 MATRICE, PAIR WISE RANKING AND SCORING

These methods are used to compare items of interest or problems confronting the local communities. The items are compared to agree upon the criteria and a matrice is developed to indicate people's perception. These methods are useful in identifying and expressing priorities and options for action by members of the community.

3.5.5 VENN METHOD

In this method, the relationship and linkage between key individuals, social groups and institutions are represented by using circles in a Venn Diagram. In drawing such a diagram, local people are guided with a view to enable them to represent the degree of real overlap and to show how people in the community relate to important institutions within the community.

3.5.6 TRANSECT WALKS

A Transect walk involves crossing an area from the centre to the periphery. This area may be a village, a forest or even a region. Many aspects of the area are then observed. These may include land use, vegetation, soils, topography and other physical features. Key indicators of these aspects are plotted graphically on the ground or on a piece of paper.

3.5.7 TIME LINE AND TREND ANALYSIS

This is a method used to map out major changes. These techniques are useful when the objective is to show what has happened over time. In a community, the period referred to is generally a year.

3.5.8 TERM CONTRACT

It is important to have a cohesive group of members to carry out PRA. The team building technique called “team contract” aims at preparing team members to interact effectively and efficiently with local people in their communities about their norms and values.

3.5.9 TRIANGULATION

Under this methodology, three items are usually important. These are:

- Tools and Techniques
- Unit of Observation and
- Team Composition

Tools and Techniques are the means by which observations of the community are made. Units of observation on the other hand are yardsticks that delineate and define major areas to be observed and examined while team composition should be varied by including women and men, insiders and outsiders. It is important for you to note that one central criterion is the combination of these methods.

3.5.10 KNOWLEDGE SQUARES

The concept of the knowledge square is used to categories or classify human relations and perceptions related to acquisition of knowledge. The concept distinguishes four situations.

- we know
- we do not know
- they know
- they do not know

Which can be represented in the “knowledge square below”.

Exercise: 3.3:

1. What are the benefits of communication?
2. What is the overall purpose of public relation assessment?
3. List the mapping and modeling methods.

3.6 PARTICIPATORY ASSESSMENT MONITORING AND EVALUATION (PAME)

Under this Unit, we discuss an approach which puts emphasis on communities. PAME a response to the traditional top-down development approach where outsiders first decide the objectives of communities and then monitor and evaluate to judge whether the objectives were met. PAME encourages, supports and strengthens communities existing, abilities in order to identify their needs and objectives.

You should know that this approach is based on the relationship between the beneficiaries and the field staff on the one hand and the beneficiaries. PAME is a combination of three interlinked parts: the ‘idea’, the ‘method’ and the ‘tools’. By using the PAME method, development can be built in a sustainable fashion because there is harmony between the community and the community.

PAME therefore, is based on the following parameters.

- change in community development
- information needs of insiders
- use of quantitative and qualitative information
- experiment ability and adaptability and
- multipurpose use of PAME

3.6.1 CHANGE IN COMMUNITY DEVELOPMENT

This strategy aims at encouraging local communities to be involved in programme designed for their use. You will discover that when outsiders design programmes for a community results tend to be discouraging but when insiders are used they prove to make promising decisions. PAME therefore is a new thinking in community development.

3.6.2 INFORMATION NEEDS OF INSIDERS

PAME as has been pointed out as a creative and adaptive information system based on the information needs of communities. However, there are limitations of the capacities and potentialities in the knowledge and resources of the insiders. Therefore, local communities, require assistance in gaining understanding of their political, economic, social and technological environment. PAME helps the insiders to formulate by themselves their own questions. Such information may also help the project.

3.6.3 USE OF INFORMATION

Pame, AS HAS BEEN EMPHASIZED BEFORE, USES QUANTITATIVE AND QUALITATIVE INFORMATION. This involves decision – makers to understand the real situation of the local community. You will have learnt that traditional; approaches based solely on quantitative information have often been unreliable.

3.6.4 EXPERIEMENTABILLITY AND ADPTABILITY

The PAME method is not a blue print for all communities. It encourages the adoption of suitable approaches to individual societies based on their experience. The specific use of the PAME method, you will agree depends on the cultural environment.

3.6.5 MULTI-PUPROSE USE OF PAME

PAME as you might have notice, can be applied to a variety of situations. It can be applied to community development programmes such as the communication of the community schools or colleges, establishment of libraries and even government projects construct of classrooms, expansion of hostels etc. However, success will be better achieved on projects, programmes or communities which are committed to sustainability, self help and participation.

3.6.6 TIME OF PAME

Based on the process outlined above, you will discover that any sequence can be entry point for PAME, however, introducing PAME at an early phase is advantageous since local communities will participate earlier and for a longer time thus reading to greater benefit to the community.

3.6.7 USER OF PARTICIPATORY ASSESSMENT MONITORING AND EVALUATION (PAME)

PAME is used by people at the community level. However, it can be facilitated by project field staff. Project Consultants can also use it where there is no experience of community participation. Ideally PAME facilitators are expected to respect the cultural values of beneficiaries including indigenous knowledge and creativity of people. They should have an open mind about the problems of the rural people.

3.6.8 THE PAME SEQUENCE

In this Unit, you will discover that there are six logical steps to be followed in the PAME method. These are:

- Community site selection
- Participation base line study
- Participation monitoring and on going evaluation
- Evaluation event and
- Feedback or analysis of information and communication of the results

The first three phases deal with site selection problem analysis and participatory base line and they are called ‘Assessment’.

Exercises: 3.4

1. Identify the parameters on which participatory assessment monitoring and evaluation rests.
2. Mention the PAME sequence
3. At what level is PAME used.

4.0 CONCLUSION

In this Unit, we have built on previous lessons on the project. Specifically, in the Unit, we have learned that project implementation requires an integrative approach in which the project manager serves as a link between management and the beneficiaries of the project. While the project managers sees to the execution of the project plans, the benefiting communities are helped to provide the Enabling environment for the overall success of the project. For projects to success, the Unit has revealed, that the culture, experience and orientation of the beneficiaries must be taken into consideration.

5.0 SUMMARY

In this Unit, you have learned that efficient implementation strategies are essential for the success of projects. The Unit must have helped to come to proper understanding of the concept of implementation as well as come to terms with the principles involved in project implementation. Very importantly in the Unit you must have learned that implementation is a process and may not be expected to be completed at a particular time. You would have also discovered that the beneficiaries of projects are of paramount significance in the process designing implementation schemes.

6.0 FURTHER READING

Ekpeyong B.D (1993) Fundamentals of Projects Analysis: An Integrated Approach (Heineman Educational Books (Nig. Plc).

Gittinger J. P. (1972) Economic Analysis of Agricultural Project (A World Bank Publication: The Johns Hopkins University Press, Baltimore and London

7.0 TUTOR MARKED ASSIGNMENT (TMA)

1. Analyze Meter and Horn's Model of Implementation (8 marks)
2. What is the overall purpose of public relation assessment. (8 marks)
3. What are the parameters of PAME (4 marks)

UNIT 4

Methods of implementing education Based Project

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1.0 INTRODUCTION

Projects can be classified in various ways according to type, nature and method of execution etc. The type of project as well as the nature determine to a great extent, the stages of development. The essence of these stages is for effective management.

In educational institutions especially tertiary ones the method of implementing project is very similar and there are many on going projects in their campuses as in the Universities, Colleges of Education and Polytechnics. Though there are other educational institutions but we are going to study their method of implementing projects. In building construction there are two broad stages:

- a. The pre contract stage
- b. The post-contract stage

The pre-contract stage comprises the pre-tender and tender action stages of project development process. The post contract stage comprises of contract execution site possession and planning, actual construction, practical completion and hand-over and finally the defect liability period.

2.0 OBJECTIVES

At the end of this Unit Students should be able to:

- 1. State the two stages of building construction.
- 2. List the various steps to take in implementing education projects in tertiary institution
- 3. Discuss the actors in the implementation process and the inter-relatedness in their roles.
- 4. Manage any given project with the personnel in place.

3.0 PRE-CONTRACT STAGE

You are going to learn about the following in this stage.

Inception, brief, sketch, design and detail pr final design, production Information and bills of quantities.

At this stage, the bulk of the work involved is done by a team of professional referred to as the Design team of Architects, Quantity surveyors, structural engineer (Civil), services engineers (mechanical and Electrical). This team is charge with the responsibility of full realization of the clients dreams from inception to final working drawings of Bills of Quantity.

3.1.1 THE BRIEF

We have seen the different actors in the web of implementation process. We are going to see here that the project is initiated by the client (e.g. ABU, Zaria, Kaduna Polytechnic or FCE, Zaria).

The client initiates the project but he is incapable of translating his dream into designs or drawings. So the brief is prepared by the architect by translating the clients dream into a design.

The brief include inputs from the Users Department, Academic planning if any or the Works Department. The briefs should provide information as space and circulation requirements, location of project, relation to the entire college. After going through the Brief you should be able to construct an hypothetical one for your house.

3.1.2 THE BRIEF

Any brief should make reference to either the College, University or Polytechnic Master and Action plan depending on the institution.

Report on school of education complex phase 1. (brief).

The school of Education complex phase 1 is an 1-shaped one storey building (i.e two floors building).

The complex has the following accommodations as requested for by the various departments in the school of Education:-

Ground floor facilities:

i	Counselling centre	1Nr
ii	Centre for Education Technology	1Nr
iii	HOD's officers	1Nr
iv	Lecturers' officers	3Nr for six lecturers
v	Store	1Nr
vi	Lecture halls	2Nr

First floor facilities

i	Conference/meeting room	1Nr
ii	Dean's office	1Nr
iii	HOD's office	1Nr
iv	Lecturers' officers	4Nr for eight lecturers
v	Lecture halls	2Nr.

The design and estimate for the project were prepared by consultants, HAMBAS Associates, appointed by the college.

The project was financed by the Education Tax fund 1999 intervention. In view of the fact that the project was financed by ETF, the contract documents were sent to them for vetting before the award of the contract based on open tendering.

The contract was awarded to Samaru construction company at the estimated cost of ₦16,375,170,00 with 16 weeks contract

period. The project started on 13th April 1999 and was to be completed on 27th July, 1999. However, the project completion period was extended over to weeks and the project was completed and handed over to the client on 13th December, 1999.

Source: DIRECTOR OF WORKS, FCE ZARIA

3.1.3 SKETCH DESIGN AND DETAILED DESIGN

i. You have just seen what a brief looks like.

In this section we have two types of design to discuss about. The sketch design which is not usually in details are drawings constructed by the Architect to show that she has in mind in a general way.

In the sketch drawing the Quantity surveyors prepares the cost plan allocating cost limits to the various elements that makes up the design and also prepares the cost check elements.

ii **DETAILED DESIGN.**

When the design is prepared in great detail we refer to it as working drawings. Here we see professionals at work as the Architect comes with detailed drawings, the structural engineer who is responsible for the structural design of the building drawing and services engineers who are both responsible for electrical and Plumbing drawings conclude their design. While the Quantity surveyor also continues with the preparation of the Bills of Quantities and all necessary tender document.

iii **BILLS OF QUANTITIES**

You are now going to see how the Bills Quantities are prepared from this example.

PROPOSED LECTURER THEATRE.

Table 14.1

	Description	Quantity	Rate ₦	Total
A	Excavate	500m ²	25.00	

B	Excavate trench depth (Not exceeding one metre)	299m ³	270	
C	150mm hardcore falling	600m ³	100	
D	Plain concrete in foundation	513	8,000	
E	230mm block wall filled solid with concrete	287	1100	
	For the substructure work (Work under ground)			

FRAMES Table 14.2

A	Reinforce Concrete in Column	20m ³	9,000	
B	“ “ Beams	8m ³	9,000	
C	20mm diameter reinforcement	900kg	380	
D	Formwork to Sides of columns	269m ²	380	
E	Frame work to sides of beams	251m ²	380	
	Total Frame			

BLOCK WORK OR WALLS Table 14.3

A	230mm block wall	1267m ²	971	
B	Screen wall	20m ²	1000	
	Total for Block work			
	ROOFING			
A	0.7mm long span aluminum	700m ²	2500	

	roofing sheet			
B	150 x 50mm rafters	600m	150	
C	75 x 50 purlins	487m	70	
	Total Roofing			

The most important or predominant items are shown in this figure.

Ceiling, plastering, painting, doors, and windows.
There are different types of ceilings.

Ceiling finishes Table 14.4

A	Celotex ceiling fixed to timber noggins	610m ²	500	
B	12 x 25 mm timber batteries	1300m	15	
C	50 x 50mm noggins	1300m	40	
	Wall Finishes			
A	12mm thick cement and sand rendering on walls (internal and external)	900m ²	150	
B	Emulsion painting on walls	900m ²	150	
C	3 coats of Galois paint on doors and windows	71m ²	260	

Exercises 4.1

1. Explain briefly the concept brief.
2. What is sketch design and is it different from detailed design

3. Who prepares bill of quantities?
4. And what is the bill about.

3.2 INSTITUTION'S TASKS

It is the responsibility of the institution to check all working drawings to ensure that they do not deviate from all the APPROVED SKETCH DESIGNS and that the cost limits are adhered to. The institution will collect significant copies of all the working drawings from the consultants and the approximate estimated cost and submit a complete set to the National Universities Commission (NUC), National Board for Technical Education (NTBE) as the case may be.

3.2.1 PREPARATION OF TENDER DOCUMENTS

This stage of project implementation serves as the crucial link between the executive design and construction stage. The main objective of tendering is to ensure optimal project cost for the best quantity of workmanship within a possible project period. The Consultant Quantity surveyor is to collect information and drawings from all other consultants and prepare bills of quantities and tender documents.

3.3 PROCEDURE FOR TENDERING AND AWARDING OF CONTRACTS

3.3.1 AUTHORITY FOR TENDERING AND AWARD OF CONTRACTS

We are going to take further steps toward the implementation of educational project in tendering.

The tender shall be invited only on the authority of the Institution Council or on the authority of a body to whom the council has delegated such powers. Tenders will not be invited until the institution has certified that adequate financial provision has been made for the contract.

The authority of the university or college, in so far as it affects the invitation of Tender and Awards of contracts may be delegated to the Finance and General Purpose Committee. The Chairman of the Governing Council or his representative will be co-opted as a member of the Finance and General Purpose Committee or Tender Board or anybody charged with the responsibility of executing capital projects.

It is mandatory that the following offices will be in attendance during Finance and General Purpose Committee meetings for the award of contracts

- a) The Bursar
- b) The Director of Works or Chief Engineer
- c) The Director/Head of user Department
- d) The Consultant Architect and Quantity Surveyor or any other specialist consultant

3.3.2 SUB-COMMITTEES

As you can see it will be necessary for the Finance General Purpose Committee to appoint a Tender sub-committee which will consist of representatives of:

- a) The Registrar
- b) The Bursar
- c) The Director of Works
- d) The Consultants

It is this committee that will ensure every Tender has been properly received and opened in a regular manner as prescribed. Each member of the committee shall endorse the Tender Result Slip.

3.3.3 METHOD OF TENDERING

Contracts may be awarded on the basis of open tenders, selective tenders, or negotiated contracts. For you to understand each of these, they are discussed as follows:

1. Open Tender

Unless otherwise decided by the competent body of the college, contracts for works, services and supplies should be awarded through an open tender. Where the competing body has decided on selective tendering method, the decision and reason will fully recorded in the minutes and tender will be invited from at least seven (7) suitable contractors.

2. Negotiated Contract

It is expected that the Tender Board will on behalf of the institution's Governing Council (in urgent cases or where positive benefits are to be derived which are recorded in its minutes), direct that a particular contract be awarded by negotiation with a named contacts or named contractors within the cost standards of the institutions.

The other areas of tender are the procedures and criteria for selection of a Registrar for contractors for building and engineering works. This entails the documentary evidence that the contractor has relevant skills, personal, experience and equipment for the job, evidence of adequate financial resources and liquidity to carry out the contract, the contractor's performance bond and consideration for current commitment of the contractor and his capacity to undertake additional contracts.

The other areas of the tendering are publication of tender notices, formal invitation to tender, form of tender, contract documents, collection and return of tender documents, opening of tender preparation and tender report, consideration of tender report and award of contract. It is at this stage that the document of Administration called Article of Agreement is signed by both the registrar and the contractor with witnesses.

3.4 ARTICLES OF AGREEMENT CONTRACT OF ADMINISTRATION

Signed by the said

SIGN

(REGISTRAR)

EMPLOYER (CLIENT)

In the Presence of

Name: -----
 Address: -----
 Description: -----

Director of Works	
Signed by the said	Signed & Sealed
-----Signed and Sealed with Stamp	-----
(Contractor)	(Contractor)
In the presence of	

Description	
(A witness from the Contractor)	

This is how contract is signed.
 The Chief executive (As chief accounting officer signs. Interim valuation and cheque is signed by him.

3.5 PROJECT EXECUTION

As shown as the contract is signed, construction work commences. You must bear in mind that during the construction of the project i.e. the stage we are in now there must be frequent site supervision. The contractor's main job if I may remind you is to translate the drainage to reality through the construction of the building, so as the construction is progressing supervision strictly should be employed to avoid deviations.

The clerk-of-works is always in the site to aid the execution consultants in carrying out the normal professional duties. However, no large projects like complexes, the engineers, builders or other professional presence on site is established in carrying out the normal professional supervision.

Project Commissioning

The institution takes possession of the building from the contractor, receives information and drawings covering such items as structural design loads, maintenance procedure, pipe scheme and electrical layout drawing from the executive constants and equipments supplied.

3.6 PRACTICAL COMPLETION STATE

In this aspect, we know that the contractor concludes a major phase of his obligation to deliver when the project is completed. The consultants involved

in supervision certify to the completion of construction and inform the client accordingly. The stage involves the release of half of the retention money to the contractor. At this stage it is advisable that all deductions in respect to the recovery of advanced payments originally made to the contractor be completed before this stage.

The second phase, defects liability period, of the contractor's work on the project commences and took a period of six months for civil engineering projects. In construction project, time is of great defect liability period, it counts less on the parties. After the waiting period the contractor applies for the release of his final retention and final certifications, it is another busy period trying to rectify defects arising from any quantity work. At the expiration of the Defects Liability Period (DLP) the contractor applies for final valuation. Before the Architect presents the final certificate of completion of the client and subsequently to the contractor, the Quantity surveyor prepares the final accounts based on which the client is advised on the amount to pay to or expect to receive from the contractor as the case may be.

Apart from all these, the other aspects are as follows –

Project Control Network – this control can be internal or external. The internal control network comprises of the College Council headed by the Chairman, the College Management headed by the Provost, the user department or school headed by Dean of School respectively.

The external control network comprises of the Federal Executive Council (FEC) headed by His Excellency the president of the Federal Republic of Nigeria, the Ministerial Board headed by the Executive Secretary. The Government is the ultimate client of a college project. The user client is the college.

This aspect also included the part to be played by the participants officers, the Provost of the College, the Managerial staff, Representative of the National Commission for Colleges of Education or Education or National Universities Commission.

The other aspect is the possible dangers of distortion in government establishment control network. It is important to make sure that the environment is good because just like you know, good environment breeds good people and to be specific, good project environment produces good projects. Some of the factors that bring about distortions in project control network are greed, lack of vision, poor definitions, more urge to commit fraud, communication breakdown or gap.

In summary, it takes quite a decent man or group of individuals in a government set up network of control for capital projects to insist on role definition and restriction and also to define role participation.

Post contract services starts: The contractor is the person or firm who undertakes the contract to erect and complete the project, the contractor is a signatory to the contract agreement and receives payment for work. He signs the contract agreement with the client.

3.6.1 CLERK WORKS

After handing over of site to the contractor, the construction work starts. The clerk of the works who is the architect's erection to see that it conforms to the drawings and specifications. He acts as liaison between the architect and the contractor. He is a resident supervisor on site.

Exercises 4.2

Answer these questions:

1. In the planning of a project what are the institution's task?
2. What are the Consultant's tasks?
3. Can you briefly explain tendering and identify the types?
- 4i. What is Internal Control Network?
- ii. What is External Control Network?

3.7 COMPLETION

When the building is practically completed, the architect prepares practical completion certificate of the project. From the date of issue of this certificate the defects liability period starts. The defects liability period is normally six months. Within this period, any defects on the building would be made good by the contractor at his own expense. After defects liability period he becomes solely responsible for the maintenance of the building.

Project Initiation / Definition Clients sets out objectives / consults with some professionals.

Planning and resources mobilization Consultants are timed.
Estimated prepared / budget drawn

Implementation consultants are Hired / Project executed.

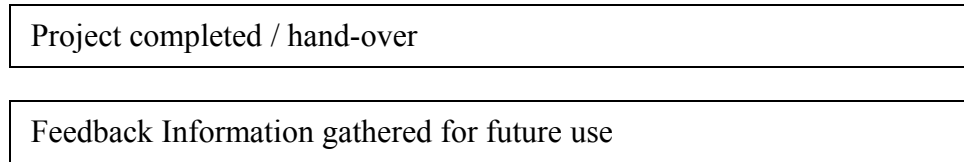


Fig 14.1: The Morphology of building process. Adapted from Quinx 2001

Exercises 4.3

1. What happened at completion stage?
2. Construct the morphology of the building process.

3.7.1 MAINTENANCE

The client start thinking of the maintenance of the project as soon as it is handed over to him

There are various ways of making provision for the maintenance of buildings. These include:

All the elements making up the building has different life span e.g.

1. Painting – to be done every 5 years
2. Re-roofing – to be carried out every 12 years
3. Electrical fittings – to be changed every 2 years, etc.

With the knowledge of future value of money a client can estimate the amount he needs to invest every year so as to undertake complete re-roofing in 12 years, etc.

Block work 20 – 25 years – by watching in sequence alternate order after excavate and renovate the building after you must remove the foundation.

4.0 CONCLUSION

Institutions undertake projects to satisfy their specific needs. These projects in most cases are non-profit making but in few other case3s are semi-profit oriented as we can easily observe.

So for project, to be implemented there are procedures which link together to form a whole which is the project envisaged. The construction projects unlike other project implementation are difficult and it takes longer time. The methods involved are many and varied with different actors at work and management control at its peak. It is for this reason that all hand must be on deck. The client, architects, engineers, quantity surveyors, contactors, consultants and users must work together as a team to inject their professional expertise so that the children yet unborn will tomorrow see their work and call them true professionals.

5.0 SUMMARY

In this unit you have learnt about the methods of implementing education based projects especially construction building. You have learnt about the different stages such as the preparation of brief, preparation of sketches and detailed designs and other drawings. You have equally learnt about bills of quantities and tendering. Project development has been discussed with you with real example from one of the tertiary institutions. You have equally learnt about the “ceremonial” aspects of giving out contract, eventually the construction and completion with hand over have both been explained. I am sure, you will agree with me that the lecture is quite interesting and that you have been fully involved in the teaching – learning process.

6.0 FURTHER READING

N.C.C.E (1992) Capital Projects Implementation Guide for Colleges
Of Education. Ade Clear Type Press Ltd Kaduna

Quirtz W. B. (2001) Project Development: “From Inception to
Completion and Hand-over”. A presentation made at N.C.C.E
Workshop on capital projects implementation in Federal College of
Education . Oct. 10 – 12. Abuja

7.0 Tutor Marked Assignment

Discuss the steps taken in implementing education based project.

UNIT 5

PROJECT CONTROL AND SUPERVISION

Table Of Contents

1.0	Introduction
2.0	Objectives
3.1	Philosophy of Project Control
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3.4	The Sub Function of Control
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3.4.4	Comparison
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3.6	Necessary information for Project Controller
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3.7.1	When to Initiate Control
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3.9	Distressed Trends in Project Supervision
3.10	Performance Characteristics
4.0	Conclusion
5.0	Summary
6.0	Further Readings
7.0	Tutor Marked Assignment

1.0 INTRODUCTION

In this unit, you will learn about the management and control of educational projects in institution of learning. You know that most institutions of learning embark on major capital projects such as the building of classroom structures, the equipping of libraries and laboratory the construction of administrative structures e.t.c. But such projects would need to be controlled and managed. Project control is therefore an aspect of project supervision which is more result oriented and more technical and it has to do with verifying whether the actions carried out in a particular educational project are in conformity with the adopted plan design, instruction issued and the principles established. You will know-that every project is meant to meet some desired objectives. Project control ensures that those objectives are achieved.

2.0 OBJECTIVES

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

- Mention the relationship between control and the management process.
- List the basic conditions that must be met in order to have a workable control system.
- Discuss the sub-functions of control
- Discuss the types of standards in project control
- Explain the distressing trends in project control
- Specify when to initiate project control
- Discuss the basic elements of project control

3.1 PHILOSOPHY OF PROJECT CONTROL

Control requires that adequate plans are formed, suitable standards developed, and an information system set up that will enable the educational project to be tracked during its cycle, and supply sufficient data for comparing the expected with actual performance. The philosophy of project control therefore entails that you:

1. Determine the control elements of supervision you intend to employ
2. Determine the specific tools you will use for regulating the control of the project
3. Determine the feedback mechanism of the control of the project
4. Determine the mechanism for ascertaining whether or not the project is proceeding toward the objective as planned.
5. Determine any deviations on the project
6. Recommend corrective action or an alternative course of action for the deviation.

3.2 CONTROL AND THE MANAGEMENT OF PROJECT

Now that you know the objectives and the philosophy behind this course unit, you should know the relationship between control and the management process. Control is part of the management process and the lines of demarcation between it and other managerial functions are not clear-cut. There is always interplay of functions between control and other management function. This interplay is not only constant but it is also in a circular pattern.

Know also that like planning project control is forward-looking. Its procedures cannot be applied retrospectively although useful lessons can be learnt from studying the past. Since control is toward-looking any deviations from the standard is easily identified and reported to the managerial authority as soon as possible. Deviation from the plan must identified early enough so that corrective action. Can be instituted before progress is impaired it is the

duty of the manager to play an active part in the control function particularly in deciding on the proper course to take in effecting corrective action.

EXERCISE 5.1

Is project Control part of the management process?
Show the relationship between them.

3.3 PRE-REQUISITE OF A CONTROL SYSTEM

You have been told that project control is the step taken in making certain that the project plan is properly executed. It is very important for you to know the pre-requisite of a control system. By this we mean the things needed for setting up an effective control system. First and foremost, you must realize that how sophisticated a control system is depends on the complexity of the project and the ability of the participants to administer it. A simple project may require only a few indicators to determine whether or not it is progressing on schedule and within the desired cost and performance constraints. A major project on the other hand requires an extensive control system that will identify and report many conditions that reflect its progress. Regardless of the complexity of the project however, certain basic condition must be met in order to have a workable control system. These conditions include: The fact that the control system projects.

1. Must be understood by those who use it and obtain data from it.
2. Must relate to the project organization, as organisation and control are interdependent such that neither can function adequately without the other.
3. Must anticipate and report deviation on a timely basic so that corrective action can be initiated before more serious deviations actually occur.
4. Must be sufficiently flexible in order to remain compatible with the changing organizational environment.
5. Must be economical so as to be worth the additional maintenance expense.
6. Should indicate the nature of the corrective action required to bring the project back into consonance with the plan.
7. Should reduce to a language {words, pictures, graphs, or other models}, which permit a visual display that is easy to read, and comprehensive in its communication.
8. Should be developed though the active participation of all major executives involved in the project.

EXERCISE 5.2

Discuss the pre-requisite for developing a workable project control system.

3.4 THE SUB-FUNCTIONS OF CONTROL

Another vital Information you need to know about project control is that it has sub-functions necessary for constraining activity. These sub-functions are:

3.3.1 ROUTING PLANNING

This function is largely routine and should not be confused with other planning functions, which are more creative and involve greater time periods. Routine planning involves collecting data from project participants and destructing it by means of classification and presentation into a form that will portray conditions and trends.

3.3.2 SCHEDULING

Scheduling is another sub-function of control. It is the specification of dates and times for performing functions and implementing the many sub-plans of the project. In this case, you are expected to translate the schedule plan into actual calendar dates and times. It follows that you should establish specific calendar periods for the completion of the projects and for the orderly integration of the complex of dates and times necessary for the execution of the plan.

3.3.3 DISPATCHING

Dispatching has to do with the release of authority to act. That is, it has to do with how to act, when to act and where to act. The authority to act is communicated to those affected by means of written or verbal orders, or standing orders expressed in policy or procedural documents.

3.3.4 COMPARISON

As a sub-function of control, this has to do with the evaluation of completed actions to see how they conform to the plans or standards. Comparison is carried out by observing data, physical activities, or the status of human and non-human resources. So, when you as a project controller check a project for conformance with quality specification, you are performing the comparison function.

3.4.5 CORRECTING

Correcting as a sub-function of project control follows some form of comparison. It is concerned with getting the project to conform to the goals, which have been set such as time schedule, cost, e.t.c. If you want your corrective action to be meaningful a framework of realistic standards must be established and actual performance measured against standard. Let us stop a while to examine the role of standards. But before then, attempt this exercise to test your understanding of sub-function of control.

EXERCISE 5.3

Itemize the sub-functions of project control
Explain any three of those sub-functions.

3.4 THE ROLE OF STANDARDS

Now that you know the importance of establishing performance must be measured against these standards, what then are standards? Standards are present performance; objectives policies, procedures and rules are made. No project can be successfully managed without standards. The quality of the project depends upon the realism and authenticity of their standards. Note that the careful analysis of the standards required for a particular project in its unique environment in what makes the project more realistic. Take an instance with the development of ballistic missiles and the building of a bridge. The standards of performance used in developing ballistic missiles are significantly different from those used in building a bridge.

You should also note that it is very important that project participants take part in developing the standards. If they do, they will more readily accept and comply with the set standards.

3.4.1 TYPES OF STANDARDS

Having ascertained what standards are and the different role they perform, it is important that you know the types of standards that can be established. You are already aware that standards used in project management are based on the basic parameters of cost, schedule and performance and that each of these parameters is developed depending on the requirements of the projects. What then are the types of standards that you can establish? Standards include the following:

1. ETHICAL STANDARDS

This has to do with the expected behaviour patterns of the project personnel.

2. STANDARD COST

Standard costs are the normative costs that are incurred in the performance of the function or phrase of operation.

3. FINANCIAL ROLE

This shows the relationship between certain items of financial data. An example of this kind of relationship is that between current ratio and inventory turnover.

4. BUDGETS

The cash budget, or forecast, is a tool of planning which becomes a standard when it is approved.

5. RETURN ON INVESTMENT

This is the control used in evaluating overall project performance.

6. MISCELLANEOUS CRITERIA

This type of standards can be used to evaluate the long-term control and performance of the project. The criteria here could include:

- Philosophy and quality of management
- Market position
- Corporate image
- Organization viability
- Organization morale
- Customers and public relations
- Personnel training and development
- Innovation and research
- Conservative of assets.

EXERCISE 5.4

Discuss the role of standards in project control and explain any three {3} types of standards you know.

3.5 **NECESSARY INFORMATION FOR THE PROJECT CONTROLLER**

This unit is meant to train you to be a project manager, you are aware as the project manager you requires information concerning the cost, schedule and technology of the project. You also need to have information on anything that will enable you to take appropriate action in managing your project.

First of all, you will need to assess the total project as it compares with other projects in your organization. Making this overall review while maintaining the proper balance in the daily routine of many competing projects in difficult. You should review this situation often so that you and your team members remain aware of the total situation.

Secondly, you must evaluate those areas, which deviate from the plan. The system must also report exceptions and must pinpoint those commitment deviations which when taken together provide the greatest threat to the project objectives.

Lastly, you must be given the best possible forecast for the immediate future. Whatever information chosen for control must enable you to forecast the future.

In this regard, the information you receive must portray a variance in the rate of change i.e. how rapidly the actual performance diverges from the plan. A graph can show present status and previous status, but unless you know the rate of change, you cannot determine whether or not you are on schedule.

What the best of information system does is not to keep you from trouble but to keep you from being surprised when trouble comes.

EXERCISE 5.5

What information do you need to have as a project controller in order to keep you from being surprised when there is trouble in the project you are to control?

3.6 **OVERALL CONTROL OF PROJECT**

In your overall control of the project and while the project last, there are some basic questions you will need to address your mind to.

3.7.1 WHEN TO INITIATE CONTROL

Seeing that control must not be over stressed it is important for you to know when to initiate control. Note first and forecast that control begins when the first germ of an idea for a project appears in the organization. This is a discernible effort which will require an expenditure of organization resources {human effort time, money, physical resources} and lead to an organizational objective. After a project has been officially recognized, it should be reviewed initially and during its life cycle in order to determine the following:

1. Whether or not organizational resources are to be expended.
2. Whether or not adequate progress is being realized in accomplishing the project goals.
3. Whether or not the project should be continues, redirected or terminated.
4. Whether or not the project contributes to the overall organizational mission.

Note that control continues throughout the life cycle of the project as one of your organic functions as the project supervisor. Project control is therefore the nerve center of the project and provides a framework for decision making.

EXERCISE 5.6

At what point during the execution of the project is control expected to be initiated?

3.8 BASIC ELEMENTS OF PROJECT CONTROL

Before we conclude our discussion on project control note that there are also certain basic elements of project control you must be acquainted with each project is finite in duration and has schedule, cost and progress as the basic elements of control as earlier mentioned.

This is a definable end in terms of time and progress although actual; progress may be difficult to measure. Also, an information system to appraise the schedule and cost parameters is continually necessary. One information is required. The basic elements of project control include the following:

1. SCHEDULE CONTROL

This consists of integrating all the schedules in the project including the overall schedule and the detailed schedules for each segment of work. These schedules may be integrated by means of Program Evaluation Review Technique {PERT} Critical Path Method {CPM} or a variation of the Gantt chart. The project control office will be responsible for seeing that the project proceeds in consonance with established schedules, and will keep the project director informed of potential and actual slippages. Project controls will co-ordinate all the schedules with the project participants and obtain the concurrence of the customer on any proposed changes.

The need for good scheduling can hardly be over-stressed. Time is a most important resource but cannot be purchased. It is usually possible to get additional funds, facilities or human resources, but time cannot be supplemented. When a schedule slips, the time lost to the project is costly and is difficult, is not impossible to regain.

2. COST CONTROL

Another basic element of project control is cost control. Cost control has to do with the organization, administration and control of the cost procedures necessary for the project. This function integrates the cost proposals from the participation organizations into a central control file. They issue work orders authorizing the expenditures of funds which should be directed to specific project tasks and specific project participants as responsible for accumulating actual costs {engineering, development, manufacturing, support, subcontractor e.t.c.} and for monitoring and directing the activities of the financial management organisation to ensure the timely and accurate accumulation of costs.

The planning function of costs control is to document historical costs and to compare these costs periodically with the original estimates {such comparisons can actually be revealing}. Other important activities are establishing proper costs, anticipating problem areas and recommending correlation. It includes the determination of the realism of the estimates, to see whether there are any cost areas that have been overlooked and to ensure that the cost estimating is accomplished systematically.

3. CONTROL OF TECHNOLOGY

The last basic element of project control we shall consider is control of technology. Technology is the most difficult parameter of the project to define and control. The “technology of the project” refers to the state of the

art that results from the project endeavors and is often measured in terms of the items they include:

- Will the project be completed on time?
- Will the final cost be within the original budget?
- Will the project meet the desired performance characteristics?, If not what engineering changes will be required? Where does the project stand in relation to cost schedule and expected performance characteristics?
- What is the interrelationship of cost schedule and desired performance characteristics? For example, what is the rate of fund expenditure relative to the passage of time?
- What is the customer's evaluation of progress on the project?

3.7 **DISTRESSED TRENDS IN PROJECT SUPERVISION**

From our discussion so far, you will understand that control management and supervision means one and the same thing at least in the context of our usage. Here we want to emphasize on the distressing trends in project supervision/control

One of the more distressing trends in project management is the tendency to overstress control; many of the information systems extend through many management levels and require that the project participants report a large amount of data. A large number of groups seeking for data. Particularly in major project cases, leads to proliferation of requirements for information. This can generate a need to argument the personnel assigned to the “doing” and monitoring” groups, since the more time they spend providing data, the less time they have to perform their other tasks.

Another distressing trend is the current tendency to rely heavily on complicated, sophisticated management systems. There is a very real danger here, in that you as the project manager can become so preoccupied with the system that you fail to exercise enough personal management of a project. You would have observed that control is actually of a personal nature. It is therefore important that you use control techniques that reflect your personality as consistent with the complexity of the project.

EXERCISE 5.7

Discuss the two {2} basic distressing trends in project supervision.

3.10 **PERFORMANCE CHARACTERISTICS**

Performance is expressed in terms of such factors as speed, range, utility, endurance, limitations reliability, maintainability, transportability and technical goals. A new product must have an element of utility greater than that of its predecessor and the amount of added utility reflects the addition to the state of the art made by that project.

Note that progress in schedule and cost can be measured and reported through the management information system but technology is more elusive. The most promising sources of information is the technical personnel. The value judgment and opinions of the technical people involved in the project are the best sources of information concerning what technology advancements are represented by the product.

EXERCISE 5.8

Discuss the basic elements of project control

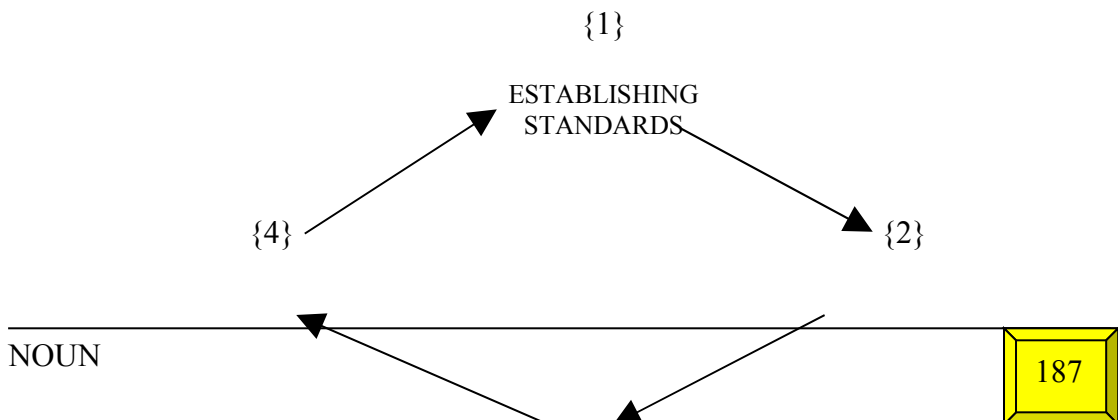
4.0 CONCLUSION

In this unit, we can conclude that project control and management entails that adequate plans be informed, suitable standards developed and an information system set up to monitor the suspense in project in the education set up. It is hoped that as management students, you shall be able to handle the control of any construction project in an educational atmosphere.

5.0 SUMMARY

In this unit, we have examined the main tenets of control as well as some of the more subtle factors affecting it. We have reviewed the philosophy of control, some prerequisites for control and some of the documentation that facilitates the control of the project. We have also reviewed the requirements of an information system; our view has been that the project information is that complex of communications, which provides intelligence about the project. This diagram is a good summation of the ideas discussed:

THE PROJECT CONTROL SYSTEM



TAKING CORRECTIVE
ACTION

OBSERVING
PERFORMANCE

{3}

COMPARING ACTUAL WITH
EXPECTED PERFORMANCE

6.0 FURTHER READING

Cleland 1.0 & King R. W. {1968} Systems Analysis and
Project Management; McGraw- Hill Book Company New York.

7.0 TUTOR-MARKED ASSIGNMENTS

There is a phase II Language complex construction in your institution of
higher learning that has been embarked upon. As a management expert
explain how you will control the project.

UNIT 6

Environmental Impact on Educational Project

Table Of Contents	
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1.0 Introduction

In this unit, we will examine environmental impact and management of project by environmental impact we mean those dynamics both within the institution and in the community in which it is located that jointly affect necessity taken into consideration by management in planning and implementing projects for the institution. You will be briefly introduced to the concept of environmental impact and management as well to the three approaches to environmental impact. In the unit as well, you will learn that environmental impact can be broadly divided into two: Internal and External – and that both are equally important.

2.0 Objectives

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

- i. Define environmental impact
- ii. List the broad types of environmental impact and know how to weight their relative importance.
- iii. Determine environmental impact can best be managed for the good of the institution or enterprise.

- iv. Come to a good understanding of the kind of relationship which, of necessity should exist between an enterprise/institution and the community in which it is sited.

3.1 Definition

All managers, whether they operate in business, a government agency, a church, a charitable foundation or a university, must in varying degrees take into account the elements and forces of their internal and external environment. While they may be able to do little or nothing to change these forces, they have no alternative but to respond to them. They must identify, evaluate and react to the forces inside and outside the institution that may affect its operations.

3.2 Approached To Environmental Impact & Management

The relationship between the institution and its environment and even the relationship within the institution can be appraised in several ways indeed, there are three approaches in this regard, that you should be familiar with.

- 1) We can view the institution as importing various kinds of input such as human, capital, managerial and technical. These inputs are then transformed to produce outputs such as products services and profits.
- 2) We can focus on the demands and legitimate rights of different claimants such as employees' consumers, suppliers, students, government and the community.
- 3) A third approach is to view the institution as operating in an external environment of opportunity and constraints, which can be classified into economic, technological, socio-cultural, political and ethical.

You would have noticed that any single approach is insufficient. The three approaches, are not inconsistent with one another, they are in fact complimentary. In other words, the institution is a part of a larger system. This means that event, internal and external to the institution affect it. Conversely the operation of the institution also affects its external environment.

As you will realize that these approaches reflect how the environment can affect an organization or organizational management can then be classified into internal and external environmental impact as represented in this figure.

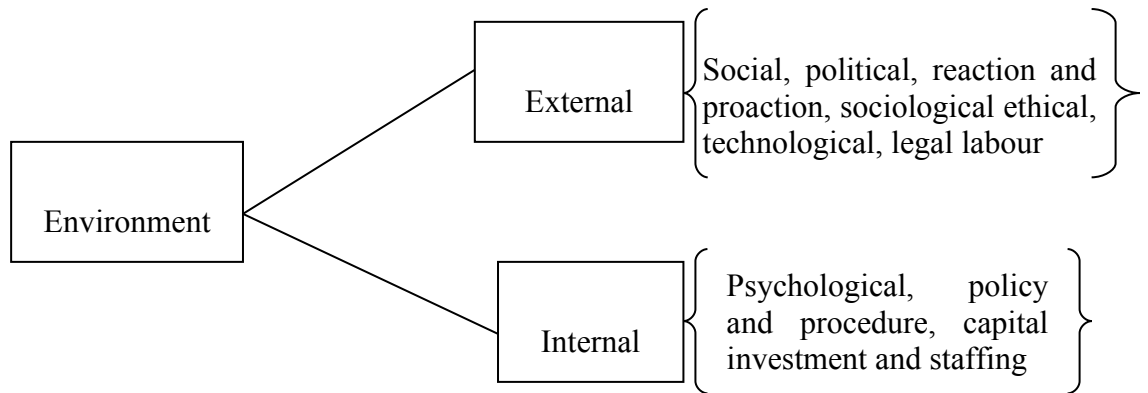


Fig. 16.1. Internal and External Environment Impact

3.3 The External Environment Impacts

External environment impacts are the social, political, reaction, proaction, sociological, ethical technological, legal/labour unions that impact upon the operation of an institution or organization. A manager or administrator has little or no control over these external impacts on his organization. Whether these impacts change quickly or slowly, however, they do stand in the way of planning we can now look at each of these impacts in turn.

3.3.1 Political Impact

Every institution, to a greater or lesser degree is faced with the inflexibility of the political climate existing at any given time. If the Local, State or Federal government actively regulate education and impose levies or tuitions, this will affect planning. The extent to which government regulate the operations of the institution will greatly determine its success or failure.

3.3.2 Social Impact

The operations of the institution must be adapted to the social demand of its environment. The rise in the demand for education, which has manifested in large number of applications for admission has, for instance, lead to the conception and birth of the National Open University and some private universities in Nigeria. The management of an institution must therefore ensure that the institution interacts and lives within its environment. This can be done if teaching, research and services rendered are tailor-made to suit the social needs of the community.

3.3.3 Reaction and Proaction

An enterprise, whether a business, university or government agency is expected to react quickly to unforeseen developments, by proaction ways of anticipating them through forecasts. An alert company for example will try not to wait until its products area obsolete and sales have dropped off before coming out with new or improved products. A government agency should also not wait until its regulations have become obsolete and discredited before attempting other ways of achieving its objectives. Unfortunately, you will agree, most educational institutions hardly react in this way because they have not adopted effective feedback mechanisms to do this. What you will see in most educational institutions is that most books and equipment have become obsolete prompting unions in tertiary institution to agitate for improvement.

3.3.4 Sociological – ethical Impact

Education ethics are concerned with truth and justice, freedom and discipline. These ethics have other dimensions such as the expectations of society fair competition, advertising, public relations, social responsibilities, autonomy and corporate behaviour in the country and abroad.

Any person in college/university, church or other / organizations is aware that such standards affect management. For example, in several countries of the world, payments to government officials and other person with intent to assure expedited or favourable handling of a business transaction are not regarded as unethical bribe but as proper payments for services rendered. However, this may be frowned at in another country.

3.3.5 Technological Impact

The rate and nature of technology change also presents very definite external impact upon organizational planning. There are perhaps few things as unyielding as the state of technological development at a given time. It is also important to note that at any given time, the status of technological progress is relatively inflexible. The full use of the solution to a technological problem may depend upon another problem that has not yet been solved. This too has an impact on management.

3.3.6 Legal /Labour Unions

The existence of strong unions, particularly those organized on a national basis legally tends to affect management and restrict freedom in planning.

The numerous wage and working-condition provisions of union contracts and the influence of union policies on employee productivity and attitudes must be taken into account in planning. In addition to being an important environmental influence labour unions often give rise to definite inflexibilities. We must however, acknowledge that unions do sometimes make important contributions to the productivity organizations.

Exercise:

1. What approaches will you use to in relation to the environment?
2. Construct internal and external environment
3. Discuss briefly the reaction and proaction impact

3.4 Internal Environment Impact

Major internal environmental impacts on management are the activities within the organization that affect its management, planning and activities. These internal environmental factors that have effect on management are related to human psychology, policies and procedures, capital investments and staffing which we will now discuss in turn.

3.4.1 Psychological Impact

One important internal impact is psychological managers and employees in an organization may develop patterns of thoughts and behaviour that are hard to change.

An organization may be so accustomed to operating flamboyantly or expensively that it cannot begin to economize. In other cases, particularly in old, established organizations, managers and employees may shun new methods, new products, and organizational changes.

Managers instituting new plans are often frustrated solely by the challenges or ability of people to accept change. This is a difficult internal impact that affects management planning and organization.

3.4.2 Policy and Procedure Impact

This is closely related to psychological impact. Once established policies and procedure become ingrained in an organization and changing them becomes difficult. This problem happens in most establishments as they get older. The organization develops procedures that seem to work, people get accustoms to them and cling to old ways even after new ones are made. New hands are also trained in old ways and this affects and organization in term of effective planning and management.

3.4.3 Capital Investment

In most cases, once money is invested in a fixed asset, the ability to switch courses of future action becomes rather limited, and the investment itself becomes a planning premise where investment is sunk on items other than what are normally regarded as fixed assets. Unless an institution or an enterprise can reasonably liquidate its investment or change its course of action, or unless it can afford to write off the investment, these conditions may affect the organization or institution. Although it may be a good rule to disregard sunk costs (the cost which has been made and cannot be easily retrieved), in planning, their existence cannot help but influence an organization or establishment.

3.4.4 Staffing

Another environmental factor that affects an establishment has to do with staffing of management positions with personnel from within the firm as well as from outside you will agree that so long as the matter is considered in general terms, there is little doubt that employees will overwhelmingly favour a policy of promotion from within. The exclusion of outsiders however, placed limits on competition for positions and gives employees of an organization or institution an established monopoly on managerial openings.

Exercise:

1. List the internal environmental impact on the organization.
2. Analyse the effect of labour union impact on the organization.

3.5 Analysis Of Risk And Uncertainty In Project Analysis

Although distinctions between risk and uncertainty are usually drawn, we shall for the purpose of project analysis use them interchangeably the UNIDO support this position on the basis of objectivity and subjectivity arguing that even when all relevant possibilities have been thought out and the various arguments bearing on the outcomes have been measured are against the other. The evaluator still finds out that certain possibilities are high unlike while others may well turn out to be correct. Hence there is need for the project analyst to be familiar with conventional tools applied in project analysis to be familiar with conventional tools applied in project analysis under risk and uncertainty, risks can be classified into 3

1. systematic or controllable risk
2. unsystematic or uncontrollable risk
3. risk arising from inadequate information.

4.0 Conclusion

You have learned in this unit that every institution or organization, of necessity has internal and external environmental impacts. While the internal impacts are those situations from within the establishment that impact upon it, external environmental impact on the other hand are the dynamics from outside that effect the operation of an organization or these factors that management, must of necessity take into consideration in planning.

You have also learned that neither the internal nor the external environmental impacts can be down played without significant negative consequences on the institution. Both must be accorded serious consideration in planning for the organization.

5.0 Summary

In this unit, we have considered the meaning and importance of environmental impact and management of an organization. You have also learned the three different approaches to considering environmental impact. In general terms environmental and external. While we considered internal environmental impact as consisting of those factors within the organization which management must put into consideration planning, we classified those other factors which may impact upon the operations of the institution from without as external both internal and external environment impacts must be carefully considered by management in planning and execution of the mandate of the institution or organization concerned.

Exercises

1. What is the relationship between policy and procedure impact and psychology?
2. Explain the importance capital investment

6.0 Further Reading

Robbins S.P. (1999) Organization Behaviour Concepts Controversies Applications prentice hall of media private limited.

7.0 Tutor Marked Assignment

- 1a. Analyse the environmental impact on any organization of your choice
- 1b. In your own option, which of these impacts are more problematic?

MODULE 4

UNIT 1

EVALUATION OF PROJECT

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1.0 INTRODUCTION

In recent years organizations are knowingly or unknowingly involved in a relatively new concept of management, that is, project management and evaluation, which is distinct from the normal management operations. Evaluation reviews the progress made whether the project had achieved the intended target or not.

In this lesson you will learn more about project evaluation its steps and types and evaluation criteria. In this unit you will also appreciate the importance of knowledge in the selection of projects and investment programmes and

through adequate knowledge the selection of investment proposal becomes easy.

2.0 Objectives

By the end of unit you should be able to:

1. Compare costs and benefits in both nominal and real terms
2. define project and evaluation of project
3. explain the step involved in evaluation of project
4. name types of evaluation
5. analyze each of the types of evaluation
6. list the methods used in rank approach

3.1 Definition

3.1.1 Definition Of Project

We can define a project as a task or a series of tasks that has a definable beginning and ending and requires the expenditure of one or more resources that must be completed in order to achieve the objective for which it was instituted.

3.1.2 Definition Of Project Evaluation

Here, we refer to the systematic examination or analysis of the various aspect of a proposed investment in order to determine it's viability. The goal we seek in project evaluation is the enablement of the decision-maker to reach an informed rational and objective choice in resources allocation.

3.2 THE CONCEPT OF PROJECT EVALUATION

As it has been implied, a project constitute the centre piece in formulating policies for development. These policies are formulated with regards to resources allocation and utilization. A number of these are in translated into specific programmes of action which are executed by the said project. Because resources are scarce, relative to the demand for them, projects selected for implementation must be those with optimum use of resources, to optimum achieve the desired goals. We can represent this diagrammatically as development plan

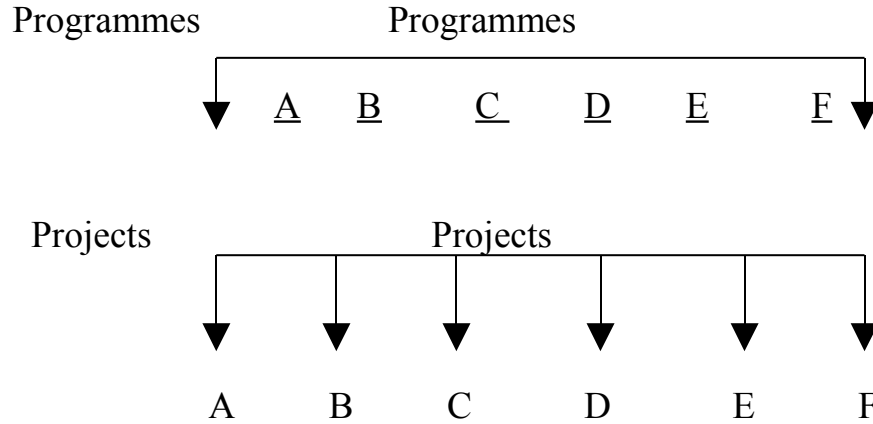


Fig. 17.1 Development Plan

Exercises 1.1

1. state some benefits of project evaluation
2. what do you think will happen if you embark on project devoid of evaluation
3. mention the relationship between project and development

3.3 STAGES IN THE EVALUATION PROCESS

There are 5 stages in evaluation process

The identification

The preparation

The project appraisal

The project design and

The implementation or management

3.3.1 The identification stage

There are different ways in which project may be identified. Existing departments or ministries may develop the project. It may be developed during the socio-economic plans at the national, state, and local government levels. Politicians and other interest groups may also identify the project. Most of the projects arise out of the desire to satisfy societal needs. But it is not always possible to have all these desires converted into project since some of them may be based on mere sentiment with no substance in them. They may even run counter to collective interest of the nation. However, as long as the project will serve the national interest and in line with the government plans it is necessary for the proposal to be considered. It is important for you to bear in mind that the project proposals that are presented by relevant officers are not based mainly on their enthusiasm but that the projects are economically and socially viable or productive. So in

order for us to forestall the undue influence of interest groups, project manager must be sure of what they are doing and resist any unproductive movement. Because, before government can approve any project it must be of high priority for development and the government has to see it clearly from that perspective and also that when the project is subjected to feasibility test significant benefit will accrue to it and also that the government is willing to support the project financially. However, if the government is not willing alternative ways maybe employed if need be.

3.3.2 **Preparation stage**

In this stage the project has entered the pipeline and you should

Make sure that the project's technical, economical and financial feasibility have been established. It is also important that the project is handled by an administrator who is experienced enough to deliver the project as expected.

3.3.3 **Project appraisal stage**

You will discover that in this stage you need information on a range of issues associated with the project and a range of issues associated with the potential undertaking, technical appraisals of the project must be provided to evaluate its feasibility and the financial capability of the project to survive the plan. Also the expected economic contribution to growth of economy must be measured. In short, if one wants to have a successful project the biases inherent in project appraisal requires a level of professionalism on the part of the analyst, which is difficult or almost impossible to attain. So to have a successful project appraisal, which will significantly contribute to the overall project planning, a selection of a good complement of project evaluation that is conversant with the political environment must be developed within the bureaucracy.

3.3.4 **Project design**

Once the appraisal is done properly in such a way that the decision makers give tentative approval to the project, then the stage is the detailed project design. Since it has been determined that the project will continue, then detailed design by quantity surveyor must be completed in with all the expenditures. The detailed technical specifications are warranted

3.3.5 **Management and supervision stage**

Project management is the system whereby various skill requirements can be brought together from ministries and departments in task force to design and carry out projects. The participants are temporary groups which exist until the project is completed; this is referred to as “matrix organization”. The design provides more flexibility in solving problem than is possible by the traditional functional bureaucratic structure.

EXERCISES 1.2

1. Define project evaluation
2. How do we get different project from development plan?
It is only the diagrammatic only

3.4 EVALUATION CRITERIA

Evaluation has five criteria, which are effort, performance, adequacy of performance, efficiency, and process. The evaluation of the first two are interrelated and precede that of the latter three. Moreover, a successful performance implies a successful effort, although such performance may still be inadequate, or inefficient, as compared to some alternative method.

3.4.1 Effort:

The criteria for evaluating the success of effort are the quality and quantity of activity that takes place. Here, we are assessing the inputs regardless of the output. It is intended to answer the questions “what did you do?” and “how well did you do it?” Although it provides no key answers, effort evaluation can be valuable.

3.4.2 Performance:

Our interest in performance is the result of the effort, which has just been considered. Here, we are required to clearly state our objectives, and assess how much we have accomplished relative to immediate goals. Has any change occur, and were the changes the ones intended. Performance evaluation can be measured at different levels of project life.

3.4.3 Adequacy of performance:

Pursuant to our discussion adequacy of performance refers to the degree to which effective performance is adequate to the total amount of need. In other

words a measure of adequacy tells us how effective a programme has been in terms of the denominators of total need.

3.4.4 Efficiency:

We refer here to the capacity of an activity to produce results in proportion to the efforts expended. It deals with positive answers to the question “does it work”. This often gives rise to a follow up question “Is there any better way to achieve the same result”. Efficiency is therefore concerned with the evaluation of alternative paths or methods in terms of cost in money, time, personal and public convenience.

3.4.5 Process:

In the course of evaluating the success or failure of a programme, we can learn a great deal about how and why a programme works or does not work. Analysis of process can have administrative and scientific significance, especially where there are indications that the programme is not working as expected.

Exercises 1.3

1. list 5 evaluation Criteria
2. which of these criteria allow for evaluation of projects based on objectives specified in the proposal?

3.5 MAIN TYPES OF PROJECT EVALUATION

Two types of project evaluation exist. First, there are audits or evaluation conducted to provide accountability of resources. Its objective is to determine whether project funds and materials were used in accordance with prevailing regulations.

The second type is the general type usually referred to as a learning dimension by the World Bank. Its purpose is to ascertain the reasons for successes and failures, and to provide a basis for future improvements.

3.6 OTHER TYPES OF PROJECT EVALUATION

3.6.1 On-going or built-in evaluation

This type of evaluation is an integral part of project design and operation. Its advantage is that undesirable deviation from project plans can be detailed,

analyzed and corrected. Conversely, successful plans can be identified disseminated to other parts of the project.

3, 6.2 Special Evaluation

Here we have a type of evaluation undertaken by people external to the project. It is a non-recurring evaluation undertaken during the implementation of a project.

We use this type of evaluation to answer questions like:

- Has the project met its specific objectives or is it in the process of doing so?
- Are there any better and more effective ways of pursuing the objectives?

3.6.3 Expost Evaluation:

We do this type of evaluation often on the completion of the project. We usually assume that it provides information which allows the project's cycles to be closed.

3.6.3.1 Reasons for expost evaluation

To obtain an accurate picture of costs

To determine when and why the schedule for project execution was changed

To gather and maintain data on changes which have been, and will be made

To document results in order to generate support for the project

To determine the effectiveness of the strategy and operational procedures used for attaining the stated objectives.

To investigate whether the stated objectives were in fact proper in relation to sector objectives.

3.7 BASIC STEPS

For us to achieve the aim of project evaluation, and derive conclusions for sound economic policy, the basic steps that must be taken include:

- i. The project's proper identification of costs and benefits potential
- ii. Once identified, these costs and benefits must be assigned a value reflecting the point of view of the analyst. Examples include market

- prices to assess a private investors prospects and shadow prices to help determine a government decision.
- iii. Costs and benefit must be compared overtime. That is we need to give greater weight to costs and benefits that accrue earlier in time and discount those that occur later.
 - iv. Once the effect of time been in corporate, benefits must be related to costs for each project, so that projects can be compared to each other and decision makers can select among such competing project for implementation.

4.0 CONCLUSION

You should be aware that evaluation draws from information gained by monitoring and examines why things went as they did and how future operations can be improved. However in Nigeria, there is hardly effective evaluation for reasons of expense of other practical difficulties, what we have instead is a crude summative kind.

5.0 SUMMARY

In this unit you have learnt about project evaluation. What you have learnt includes its identification, stages, such as identification, preparation, project appraisal, project design, management and supervision. You have equally studied evaluation criteria and the steps in project evaluation that will help us into deriving conclusions for sound economic policy.

Exercises 1.4

1. (a) Explain the steps to be taken in evaluation
(b) State some benefits of evaluation
2. What type of evaluation will help you to detect whether the project is achieving its objectives or not?
3. What information do you expect evaluation provide for you

6.0 FURTHER READING

Thompson A.R. (1981) Education and Development in Africa ELBS and Macmillan

UNIDO (1972), Guidelines for Project Evaluation Project Formulation and Evaluation Series No2, United Nations New York.

7.0 Tutor Marked Assignment

1. State and discuss the 5 stages of evaluation
2. Expost evaluation of projects is useful only in projects that have not been evaluated continuously. Justify your answer adequately and convincingly.

UNIT 2**SOCIAL COST BENEFIT ANALYSIS****TABLE OF CONTENTS**

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SOCIAL COST-BENEFIT / RATE OF RETURN ANALYSIS

1.0 INTRODUCTION

In this Unit, we shall be discussing the cost-benefit analysis as a technique by which factors can be compared systematical for the purpose of evaluating the profitable of any proposed investment. For us and the government, the choice we make between different ways of investing resources rests to a great extent on an evaluation of the costs and benefits associated with such investments. You will agree with me that, an investment is considered as a profitable use of resources for the individuals or for the society at large, when the expected benefits exceed its cost.

Through the development of the technique of cost-benefits analysis, evaluation has become systematically reliable and as comprehensive as possible; which eliminates the need for guess work or intuition. Cost-benefit analysis when carefully done, becomes a useful tool in management and in making rational judgment. However, bear it in mind that, it is not a substitute to it; for there is a level of uncertainty in the prediction of cost-benefit analysis.

2.0 OBJECTIVES

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

- (1) define cost-benefit analysis.
- (2) write the financial option return formula.
- (3) analyze the formula of the rates of return to education.
- (4) describe the cost of education.
- (5) discuss the methods of rates of return to education.
- (6) explain the returns to education.
- (7) mention the advantages of applying the cost-benefits approach to education.

3.1 COST-BENEFIT ANALYSIS

Education, as you all know, is the preparation for the greater life ahead. If this is so then education must help to solve the manpower problems in the nation and also change the people who have passed through it-Thus, education is now seen as a way of investing on human beings.

Despite the fact that education yield both economic and non-economic benefits, the question is, are the benefits worth the associated costs involves; especially from the view point of it being seen as social or private investment?

In order to effectively analyse the costs and benefits of education, one needs to employ the use of a model. One of such models often employed is, the cost-benefit approach which is also referred to as the rates of return. The cost-benefit analysis could be seen as an analytical approach to asking choices out of available alternatives. This entails that, the planner estimates the cost of acquiring some additional levels or types of education and the extra benefits that are likely to accrue to the individual or the society as a result of such provision. Thus will therefore help us to determine its probability.

Furthermore, the cost-benefit analysis offers a opportunity for the planner to critically examine the scarifies involved and the further benefits of thee educational programmes on the basis of its cost before embarking on such an investment.

Moreso, when the planner's needs exceed his money, this approach could provide a measure of expected yield which will serve a guild to rational allocation of resources and would also help him to decide on how to decide on how best to sped his money.

In addition, it is important for the planner to clearly specify the objectives of the programme while applying the cost-benefit analysis approach. This is because, the effectiveness of all the projects per unit costs for each of the

stated objectives has to be determined after which a choice of the best project will be made on the basis of the anticipated costs and benefits

3.1.1 THE COSTS TO EDUCATION

The social cost of education, that is, the cost of education to society as a whole can be listed under four main components for your analysis. They are:-

- (1) direct operating costs incurred by society (i.e. recurrent expenditure) which consists of wages and salaries , purchases and non-durable materials and current services;
- (2) capital resources cost;
- (3) opportunity costs or earning cost by individuals attending educational institutions and;
- (4) incidental school-related expenses incurred by students and/or their parents, such as, books and transport expenses.

The private cost of education consist of components (1), (3) and (4) listed, except that in (1) tuition and fees paid by students are substituted for society costs.

3.1.2 THE PRIVATE RATE OF RETURN

The private rate on education investment id the benefit occurring from additional years of education, that is, it entails a comparison of life time earnings differentials associated with extra education with the private cost of education. The social rates of return on education, which are derived from the private rates are calculated by comparing the pre-tax earnings differentials with the overall social costs of education.

The rate-of-return approach comprises the social cost of expanding education and the benefits derivable form such educational expansion. This approach demands that within the formal education system priority should be given to investment in the kind of education system priority should be given to investment in the highest returns.

3.1.3 RETURNS TO EDUCATION

Various scholars have attempted to calculate the rates of returns to education in different countries. In some cases, such computations were focused of private rates of return while others calculated the social rates of return in relation to the benefits of education that accrue to the society generally.

Private rates of return of education of education can be classified into the following categories:-

- (i) The financial option return: - Ovwigho (1991) examines the value of additional education in terms of the additional earnings that a person receives due to the completion of a given level of education. In addition, the value of the “option” to receive further education and the associated rewards is another important benefits. In an attempt to compute the total returns to a given level of education. The following formular could be used.

$$R_{j} = R^{*j} = (R^{*K} - R) \frac{c_k}{c_j} p_k + \dots (z -) \frac{c_z}{c_j} P_z$$

$$= R^{*j} + Z \frac{(R^{\infty} - R) c_d}{\sum_{a=k} c_j} P_{\infty} \text{-----(i)}$$

Where R^{*j} = rate of return over cost for education level j.

$R^{\infty} - R$ = ‘Supernormal’ rate of return on level a

c_{∞} = weighting factor: the cost of education, a, as

c_j a proportion of the cost of education, j.

P_{∞} = Probability of a person which education, j; obtaining or reaching level a

Formular (1) as it was presented to you thus that shows that the value of the option to receive additional schooling demands on the probability of its being exercised and the exert value if at all it is exercised. On the basis of this formula, weishbord (1968) quoted by Ovwigbo (1991) tell us the estimated value of high school education. He discovers that when the value of the opinion to continue college education was computed, the estimated return 14% for high school education increased to 17.4% for additional two years of college education.

- (ii) Non-financial Options:- These are the benefits that are derived from education, which may not necessary be qualified in monetary terms. For instance, as a result of education you are likely to have more job opportunities opened to you. This means that, you have the flexibility of selecting the job that you prefer to accept after considering the jobs factors such a job security and the prestige attached to a given position. As a result of the education acquired, you are likely to utilize your leisure hours profitably. Education also places you in a position to benefit from one the job-training programmes in any organization.

- (iii) **Technological Change:-** Through education, you readily or easily learn to adopt to technological changes in the society and this makes it possible for you to derive the advantages that are associates with occupational mobility of labour.

Other private returns to education include the notion of consumer efficiencies in the sense that through education, you become acquainted with the market situations and therefore, become more efficient in your purchasing and consumption endeavours.

3.1.4 EXTERNAL BENEFITS OF EDUCATION

These are the benefits that society derives form the education received by you as individuals and citizens such as residence related advantages. It is assumed that, by the virtue of your education you could learn to e more tolerant of each other and live happily with your neighbours. And by the educated people like you conducting yourselves on a peaceful manner, the nation is saved from the ordeal of investing excessively on measures to combat crimes. Moreover, as a result of education acquired, the citizens are expected to be alive to their social and civil responsibilities thereby fostering unity and progress.

Your children are also expected to derive some benefits from you as an educated parent through the type of up-ringing given to them and this may invariably be in the interest of the society at large as cases of juvenile delinquencies would likely be reduced.

It is also important to note that employers directly benefits form the increase in productivity of their employees resulting from the education that they receive. In fact, it is note-worthy that the effectiveness or efficiency of an educator worker could enhance the co-ordination of work in various organizations and this might have positive spill-over effect on the activities of other workers.

3.2.1 FORMULA OF THE RATE OF RETURN TO EDUCATION

Ovwigbo (1991) has enlightened us about how the rates of return to education were computed y Becker (1964). In Becker's experiment he calculated the internal rates of return in the United States of America. The popular census of 1949 and 1950 in USA formed the data. Through profiles for colleges and high school graduates. He later adjusted the 1940 data in line

with the depressed economic conditions as that time. Becker further adjusted the earnings in 1939 upward to represent the earning cohort of those graduating in 1939 and other adjustments. On the basis of these adjustments, the calculated streams of earnings for colleges and high school graduates were derived. The direct private costs were computed from the data collected by the office of education and other surveys while indirect costs were estimated by assuming that the typical person attends college from the age of 18-20 years and earn one quarter of what he would have earned, on this basis the actual earning between college and high school graduates were computed. In computing the internal rate of return you should be aware that the following procedures were followed.

E_t , is consider to be the earning of a individual in year t and an assumption is made that the individual could also invest his money at a rate of $r\%$ per annum. The present value of his stream of earning is the sum of discounted E and this is represented in the formula.

$$V = \sum_{t=1}^n \frac{E_t}{(1+r)^t} \text{-----(1)}$$

When n = length of working life
 On the other had, if V and E are known, it is possible to deduce the internal rate of return on your investment in education. If it is assumed that all the costs of education were incurred in the current year, then using C for unknown cost of education and i for the internal rate of return, the formular becomes.

$$V=C = \sum_{t=i}^n \frac{E_t}{(r+i)^t} \text{-----(2)}$$

However, Ovwigho ad used us to compute since the costs of education are incurred over a number of years.

$$V = \sum_{t=1}^N \frac{E_t}{(i+j)^t} - \sum_{t=1}^n \frac{E_t}{(i+j)^t} \text{-----3}$$

Then to determine the i which set $V = 0$ the formula becomes

$$V = \sum_{t=1}^n \frac{E_t - C_t}{(1+j)^t} = 0 \text{-----4}$$

By using the relevant data on the age the year, (t) and the net returns the sum V is computed for different values of 1

EXERCISE 2.1

Using the rate of returns formula, study the formula very well and calculate the rate of return to university graduates of 1985.

Backer, (1964) in Ovwigho computed the social returns to schooling in USA, on the basis of the 1939 – 1949 age cohorts and he developed lower and upper limits of social economic gain from education. He considered the direct social cost of items such as books and additional living expenses. After the necessary adjustments, have been made, for instance, for differences in ability, the lower and upper limits of social returns were computed.

In Nigeria, the social rates of return for different level of Education have been calculated by different people including Ovwigho. It has been calculated in Northern Nigeria from the average life time profiles that were directly obtained from the western region government's salary scales.

His justification was that about 90% of the employees who were in the clerical jobs and above were employed by the government and its agencies. Briggs (1973) restricted his survey to the secondary school graduates in Nigeria. He based his rate of return calculations on absolute earning and used the discounted cash flow technique to arrive at his figures., essentially, computed the rates of returns by the types of secondary education and the types of employment.

EXERCISE 2.2

1. List the cost of education.
2. describe the return to education.
3. what is a non monetary option of education .
4. write the formula of rate or return to education.

Akangbou (1985) on his part focused his attention on the rates of return to investment in education in Bendel state. He however observed that the estimated return to secondary and university education showed that there was an efficient allocation to all types of education except in the provision of upper secondary education. Specifically, he discovered that the private rate of return to university education was about 21% and the crude marginal rate of

return to sixth form education was only 5.2% although the fully adjustment rate was only 3%. On this basis, he observed that the investment in the sixth form education course, if taken to be terminal, does not seem to be a justifiable venture.

It is essential to note that while you are computing the rates of returns adjustment have to be made to cater for some factors that could otherwise affect the validity of the figures you obtained. For instance, the income profile used in calculation could assume that the market is one of full employment as soon as they completed their programme. To cater for such unrealistic situation, an adjustment has to be made for unemployment.

For instance, we can estimate that the secondary school leaver spends an average of one year before securing his first appointment and that as from that date onward he is expected to be employed for 10% of his life time. This assumption as we all know it, is even untenable under our present situation where the possibility of a primary school leaver securing any meaningful job is minimal.

Adjustments are also to be made for wastage which could be in the form of dropouts or an adjustment for failures. Thus a provision, needs to be made for a large number of the students who either dropout of school system or are unable to complete their programmes successfully. Moreover, adjustment has to be made for ability. This becomes necessary because earning differentials among people may not be solely taken into consideration.

Ovwigho studied the assumptions made by both Rowels 1956, Briggs (1974), Hinchliffe (1969) and Akangbou (1985). Rowels assumed an alpha-coefficient of 0-60 were made while Briggs assumption was 0-60 Hinchliffe did not make any provision for ability adjustment but Akangbou adjusted for wastage and unemployment.

3.2.2 METHODS OF THE RATE OF RETURN TO EDUCATION

With the various attempts made to compute the rates of return of education, the following ways and methods are generally estimated:

- (1) by using a benefit-cost ratio method. This means the division of the benefits by the costs
- (2) by discounting the net present value method which required the deflation of the benefits and costs by an assumed rates of discount, and

- (3) by the calculation of the internal rates of return. This involves the division of the streams of benefits and costs by a rate of interest that equates the benefits and costs stream.

It is important for you to observe that no single formula can be designed to cover all educational programmes whose costs and benefits are to be assessed. Formula can therefore be generated to suit the peculiar projects for which planning is made for instance, apart from the method so far discussed, Davis (1965) Ovwigho (1991) has suggested that in attempt to determine the benefit cost for an individual who participated in one year educational programme, the following formula could be applied.

$$B_j = \sum_{t=i}^{t=N} \frac{R_{t+i}}{(1+i)^t}$$

$$\frac{t=i}{o_j + c_j}$$

Where N= Number of years cover which additional income is expected.

R_j = additional income net of taxes in year t expected by individual j after completing a level of education

i_j = rate of interest used by individual j to discount expected future additional income

o_j = opportunity cost as seen by individual j

c_j = direct costs of programme to individual j

B = Benefits to individuals

Generally, in applying the cost benefit analysis, you must bear I your minds that it is important for the planner to specify the objectives of the programme. The effectiveness of all the projects per unit costs for each of the states objectives has to be determined. Then a choice of the best project has to e made on basis of the anticipated costs and benefits.

3.2.3 ADVANTAGES OF APPLYING THE COST-BENEFIT APPROACH

The cost-benefit approach could go a long way to help minimize the waste of limited resources especially here in Nigeria; where education is largely a public venture.

In addition, it could indicate the alternatives that might be more beneficial and less expensive to the nation through the use of cost-benefit analysis which provides a systematic analysis of the costs and benefits of the various types and levels of education to the planner.

Furthermore, there is the need for you to apply an approach of this nature to determine the levels of expected yield of the different educational programmes in the country thereby serving as a guide to rational allocation of the notions scarce resources among the various types and level of education. Through the effective application of this approach, the planner is likely to obtain relevant information about the links between education and the labour market. It could also enable one to understand the cost of the different kinds of education and possibly a balance between the supply and demand for the various categories of educated manpower. In general, the cost-benefits analysis could provide useful information for making rational policies and it could point out the need for changes in resources allocation especially in favour of those types of education that offer higher rates of return.

3.2.4 DISADVANTAGES

One of the pitfalls of the application of the cost-benefit approach is that, it seems to lay emphasis more on economic benefits thereby neglecting other benefits that could be derived from the investment in education which are non-economic in nature.

In other words the cost-benefit analysis does not provide appropriate means of appraising the socio, political, cultural and even psychological consequences of education. For instance, the education objectives which system has multiplicity of are mainly non-economic in nature this has led some efforts being made to calculate such non-monetary returns but such computations are usually unreliable.

Another obvious disadvantage is that, one's future earning is likely to be underestimated. This is so because the rate of returns approach is mainly based on age earning profiles from across sectional data which seen not to be comprehensive enough. The implication of this is that, even when one's qualifications have improved, one should not expect rise in one's income in future.

Also, there is the danger of overestimation of the contribution of education to national output when the average earning data is applied in this approach. Owing to the imperfections in the labour market, difference in earnings cannot be relied upon as a measure of direct economic benefit of education. Thus, earning differentials do not necessarily reflect the relative productivity of workers.

Finally, the application of the rate-of return approach, could lead to false assumptions that there is full employment for the educated when in the real sense, the problem of unemployment among school leavers or graduates is always on the increase by the day; especially here in Nigeria in particular and in most developing nations in general. In addition, private rate-of-return are relatively meaningful since we do not always decide to invest in education for purely financial reasons.

4.0 CONCLUSION

If economic analysis of education projects is to compare costs with benefits to determine which among alternatives is more viable and profitable then the costs and benefits will always have to be identified.

However, you must realize that project can lead to benefits being created or costs being incurred which arise outside the project itself has led to the argument that economic analysis should allow for secondary costs and benefits to attribute to protect investments.

5.0 SUMMARY

In this unit you have learnt that cost benefit analysis is an important aspect of project eventuation. Investment are normally evaluated in line with costs and benefits accrued to see its profitability before embarking on it. The lesson you have learnt is that therefore costs in receiving education and benefits also which are both financial and non-financial option the formulae of rate of return has been constructed and the example you have learnt in this lesson are such that you can use the formula to solve other problems of rates of return of other age grades. You have learnt that despite the good aspects of the technique it is still not perfect.

6.0 FURTHER READING

Akangbou S.D. (1985) *The economic of Educational Planning in Nigeria*
New Delhi Vikas publishing House Put Ltd.

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Musaazi J.C.S. (1991) The Theory and Practice of Educational Administration . Macmillan Nigeria.

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7.0 TUTOR MARKED ASSIGNMENT

1. Define cost-benefit analysis
2. Explain the rate of return formula
3. What are the advantages of cost-benefit analysis _

UNIT 3

PROJECT SUSTAINABILITY TEST

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1.0 INTRODUCTION

Every area of human endeavour demands sustainability of whatever projects exists. Human beings maintain their bodies by taking good food, having constant medication to check, treat and prevent illness. Items in homes are maintained to be kept in good shape. Motor vehicles require service to avoid breakdown. This tendency of sustainability is inherent in every human being and does not require formal learning on its need and importance. As a result of this inevitable need of maintenance, a topic like the one we have at hand which borders on “sustainability of Education project” is relevant to professionals and students of tertiary institutions a well as the general public. This study highlights the need for sustaining structures and infrastructure in their environment.

2.0 OBJECTIVES

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

- i. Define sustainability as it pertains to Education projects.
- ii. Discuss the elements of sustainability.
- iii. Explain the modalities surrounding the sustainability of education Projects.
- iv. Identify the sources of funding Education projects.
- v. Recognize the operation condition of Education projects.
- vi. Imbibe the culture of sustaining Education projects.

3.1 DEFINITION OF SUSTAINABILITY

In a general view, the concept of sustainability refers basically to the action of maintenance. However, its use in this unit is a little bit deeper than the mere action. In offering a definition of the concept as it pertains to education, its projects and facilities, one would also state that sustainability is concern, largely with keeping in existence, to avoid breaking and falling.

Sustainability also takes into consideration supporting an idea, facility or project to continue.

More so, it involves a decision to keep, support and continue with whatever is considered valid.

The above attempts at defining the concept of sustainability reveal to us its position in the successful handling of Education projects. The such projects, if they must continue, should be kept and supported to exist.

Hence, sustainability is not just a mere act of looking after, but incorporates the process of keeping, supporting, continuing to ensure that a valid issue, idea, facility or project is preserved.

3.1.1 ELEMENTS OF SUSTAINABILITY

We are now going to highlight these elements:

- i. Self-reliance;
- ii. Continuity and maintenance of human skills and institutional arrangements;
- iii. Economic sustainability, including cost effectiveness and adequacy of real earning levels and attractiveness of career prospects and working conditions and adequacy of operating budgets;
- iv. Political commitment based on considering of activities with national goals;
- v. Responsiveness, relevance and usefulness of activities circumstances;
- vi. Flexibility of capacity to respond to changing circumstances;
- vii. Environmental sustainability.

When you consider all these elements you'll discover that continuity of skills, cost effectiveness and real earning levels are both guaranteed. Politicians as we know use to complain about our poor maintenance culture which they say discourage them from embarking on projects until there are proper instruments in place to rest the sustainability of the public projects.

Exercise: 3.1

1. Define sustainability

2. Mention 6 elements of sustainability
3. Discuss the benefits of sustainability

3.2 EDUCATION PROJECT

As used in this context we see Education projects embrace a construction, a combination of elements that a fabricated in accordance with a design, e.g. Curriculum design. The concepts, a used also includes facilities such as infrastructures like roads, buildings, etc of an educational system.

From the foreign definitions, it is easy or us to ascertain the flow of though of this paper, which is simply attempting to create an awareness of the need to keep, maintain, support a project to be in existence. In the introductory part of this paper, we made mention of the notion maintenance an inherent ability in individuals. Without dispute, we accept that fact, but we dare not fail to remind ourselves that, despite its assumed natural existence a feature or quality, most individuals are likely to overlook, or regulate its importance. Some individuals could, rather, decide to wait for too long before considering sustainability of projects. Others still do not take the issue of sustainability seriously especially where the project concern is not one of the very necessary ones that are used daily in the educational system, or involves a high cost of maintenance.

Exercise: 3.2

1. Suggest an activity that could be carried out to ensure the preservation of a project
2. Mention the elements of designs that could be easily referred to as education projects.

3.3 THE MODALITIES SURROUNDING THE SUSTAINABILITY OF EDUCATION PROJECT

Every educational system has its organized hierarchy or leadership. This differs from one institute to another. While the universities have vice chancellors at the helm of affairs, the Polytechnics and Colleges of Education have Rectors and Provosts respectively.

This organized leader structure along with their team in each system, are responsible for the maintenance of the various projects in their domain. They implement policies that will result in effective sustainability of projects. They liaise with higher authorities, like the Governor, for funding of their systems

From what is mentioned above, the trend looks hitch free. That is far fetched especially in systems where the organized hierarchy or leadership, for some reason alter the seemingly alternations is attempted, briefly, here.

Some vice-chancellors, Rectors and Provosts may refuse to take responsibility of ensuring to keep alive, or supporting an idea or a structure which was not initiated by them.

Others may concentrate on what to achieve during their tenure in office and what legacy to leave behind for prosperity. Invariably, such a leader works only towards ensuring that what he considers as his personal executions stands and is kept at the expense of other existing ones that may be demanding urgent attention.

In addition, the cost of maintenance of most projects, when ascertained, could be so enormous that it could approximate the procuring of a new one. This high rate of proposal and envisaged financial implication of maintaining a project, is known to be responsible for the non-observation of the sustainability moves.

Exercise: 3.3

1. Discuss the factors that could hinder effective sustainability of Education projects.

3.4 THE RESOURCES OF FUNDING EDUCATION PROJECTS

Depending on the tertiary institution in consideration, there are specified bodies whose functions include administration and overall planning for the capital and recurrent expenditure of institutions. For instance, the above mentioned forms part of the functions of the National Commission for colleges of Education (NCCE) as prescribed by its establishing instrument – Decree No. 3 of 1989.

Other bodies like the National Universities Commission (NUC) and the National Board for Technical Education (NBTE) also liaise with the Federal Government through the Federal Ministry of Finance to collect approved budgetary provisions to cover the areas of need in their various systems.

In essence, they make funds available for capital development in their institutions.

These funds are not just released any how from the Government coffers. These mentioned bodies draws up budgets of expenditure for their respective institutions and defined those budgets. Based on each defended budget, money is released from the development and sustainability of projects in the institutions concerned.

In Akniwale (2001), it is observed that the funding of projects stems from sources like grants from the Federal Government, moneys raised by and subscriptions accruing to the council procedures through the following process.

- i. Identifying needs at the University/Polytechnics/College level, prioritizing the needs;
- ii. Matching the needs with the strategies development policy as set out in the master plan;
- iii. The final budgeting and budget defence;
- iv. Budgetary allocation, grant release, project execution and monitoring.

Exercise: 3.4

Discuss the implementation of the above; mention process among yourselves as participants.

3.5 THE OPERATING CONDITION OF EDUCATION PROJECTS

The operating condition of most education projects usually involves the physical development which is based on a master plan which is, in turn, based on the objectives and functions of the institution. The master plan is endorsed by the council, having regard to existing national polities and submitted to other relevant organs or agencies for final approval.

Education can be promoted through intellectual, socio-cultural and physical development of the learning environment. Maduewesi (2001) stated that the quality of the physical environment in which education takes place, plays a large in the quality and behaviour of the citizens.

When we talk about physical development, we refer to the proper utilization of resources to promote the planned physical growth. This includes the erection of suitable buildings, roads, walkings, recreational facilities, municipal plants for water and light, communication facilities, landscaping, fences, workshops, office buildings, staff and student housing and most importantly, the maintenance of all these facilities.

An attractive well-laid-out, well planned physical environment is a necessity for any situation to embrace in order to achieve its goal and play its role successfully.

From the fore-going, it can be deducted that the condition of Education projects need be in “top form” and this could only be achieved through the application of the concept of sustainability. So, as earlier pointed out sustainability of Education project is a move that must be embraced by all,

especially in this regard, those who are in the educational system or background.

Exercise: 3.5

1. Identifying the problems militating against sustainability by the management of education institutions
2. Discuss the producers through which funds are allocated to Federal Colleges of Education.
3. Analyze the operating condition of education projects.

3.6 IMBIBING THE CULTURE OF SUSTAINING EDUCATION PROJECTS

Sustainability of Education projects, boarders mainly on the proper culture of maintenance of whatever is in the institutions. Therefore, imbibing the culture of sustaining Education projects involves an enlightenment for everyone who us in the school or educational system.

That ranges from students, lectures, non academic staff, the Provost, the members of the college community.

Irrespective of the means of putting up a structure, whether by contract or by direct labour, usage and time (age) will of necessity catch up with them and begin wear them. Sometimes, natural disaster could affect some projects. Hence, maintenance work is very necessary especially in the face of these destructive tendencies.

This paper, deems it necessary for individuals to recognize the responsibility of maintenance, constantly, Education project in order to monitor is depreciation rate and thereby reduce the incidence of deterioration in institutions. Is it possible to prevent water and tear of structures, vehicles, machines and other items used in the educational system? In as much as one cannot control the weather or other natural there could be a control over the quantity of structures and infrastructures, to ensure that the quality is of a very high standard.

Exercise: 3.6

1. What are the steps one can take to ensure the high quality of structures and infrastructures?
Routine supervision of the execution by whoever is at the helm of affairs.
2. Apart from the vice chancellor, Rector or Provost which other officer holder is not suitable for supervision of on-gong projects?

The Director of Works and her team in works department.

Special attention also be given to purchase items needed as education projects. One should be way of fake items that could hinder the sustainability of projects.

Furthermore, a deliberate efforts should made by the vice-chancellor, Rector or Provost as the case may be, the management, the council, the National bodies responsible for the different institutions and Government to ensure that maintenance/sustainability work is sufficiently carried out in the institutions.

In line with the positive attitude of imbibing the culture of sustaining education, is should be considered that money released for such projects be accurately expanded and occurred for.

Sustainable gives health and length of life to life to education projects and it is with proper maintenance culture that the learning environment is both improved and sustained.

4.0 CONCLUSION

Education in this country to be helped in various ways so as to improve it as a system as well as make it enhance the learning individual which is the major target of such. One of the ways through which the above stated can be realized and achieved is by way of having, reawakening and internalizing a proper maintenance culture of whatever projects exist in the learning environment.

Such positive attitudes will make for effective sustainability of Education projects. In this write-up, diverse objectives have been outlined all geared towards achieving sustainability of projects in our education environment.

The concept of sustainability has been explained and there have been attempts to define the concept to the understanding of everyone concerned or needed in this noble act of preserving for posterity.

Sustainability, as earlier stated is viewed to stem from a decision to keep, support and continue with whatever is considered valid in the educational system. This among other definitions gives credence to the topic at hand. Education projects were also identified as whether exists in the system. This covers the wide range of existing facilities, infrastructures and structures of funding Education projects. The Government was noted as the major source of funding. In addition, modalities surrounding sustainability were highlighted and these revealed the hierarchical system of leadership in educational systems how the leaders liaise with appropriate bodies to which

they are directly responsible and eventually how government approval is usually gotten to support sustainable development of our learning system.

In our discussion about recognizing the operation condition of Education projects, it was pointed out that an attractive, well laid –out, well – planned physical environment is a necessary condition that should be met if any institution desires to achieve its goal or play its role successfully.

Finally, we are enlightened on the issue of imbibing the culture of sustaining Education projects. A good culture of maintenance forms the predicate upon sustainability thrives. All hands were then invited to be on deck beginning from the leadership down to any other member of an educational system, the caution sounded alike – maintain what exists in order to sustain them. The seemingly huge responsibility of sustainability was presented as an activity which involves the active participation of all concerned.

Also, questions are being posed from unit to unit. Participants are to answer them, accurately and with all amount of sincerity.

5.0 SUMMARY

This paper is a hands on paper on the concept of sustainability of Education projects. Its stated objectives are such that demand practical and effective involvement of the participants who involve, largely individuals in the education system ranging from leaders to at least members of such systems on one hand, and the Government on the other.

6.0 FURTHER READING

Federal Republic of Nigeria: NCC Decree No 3 of 1989.

Akinwale, R.S.T. (2001) “Funding Capital Projects” in Federal Colleges of Education”. A paper presented at the National Workshop on Capital Projects Implementation in Federal Colleges of Education in Abuja OCT. 10 – 12.

Maduemesi, E.J. (2001) “The Role of Council and Management in the Physical Development of Federal Colleges of Education”. A paper presented at the NCCE workshop on capital projects Implementation in Federal Colleges of Education. In Abuja OCT. 10 – 12.

7.0 TUTOR MARKED ASSIGNMENT

1. Discuss sustainability as it relates with education projects.
2. Specify the right attitude of leadership towards existing projects.

Suggest an act that could enhance the putting down of good project in the learning environment.

UNIT 3

Feedback on Educational Project

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1.0 Introduction

Feedback is an information about the result of experiment. We can further define feedback in other ways.

In project management, feedback refers to information that tells worker how well they are performing and feedback comes from both the job itself and management. The idea of feedback you will agree with me is a simple one, but it is of much significance to people at work since they are investing a substantial part of their lives in their work, so from the chief executive of the institution to the administrative head of institution (registrant) and even to the works department and down to the construction site there must be to and fro communication leading to effective feedback.

2.0 Objectives

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

1. To discuss feedback on project implementation
2. List the importance of feedback.
3. Draw a communication process model
4. Enumerate the types of feedback
5. Analyze a survey feedback in management.

3.1 Feedback On Project Implementation

In project execution, monthly output reports often are inadequate because the time lag is too great. Weekly and daily reports are better

and hourly and continuous reporting may be better if the work process allows these types of feedback.

In the construction work effective supervision aids feedback.

Every aspect of the work is specified e.g. roofing sheet, concrete mix, wood and planks type and size, electrical wiring material finding and plumbing etc. S supervision will test how workers perform by testing flushing, weight f storey building whether it is withstanding or not. If there is contraction, this is quickly communicated through a feedback to the clerk on work who will inform the contractor and corrective measure will then be taken in such a way that if it is a beam that has failed, you will introduce column. If it is wiring you remove it and introduce another one. You will agree with me that the initial feedback is very important otherwise building may collapse or be prone to catch fire. Even in plastering and other aspect of the project, feedback is received constantly. Also when the work is progressing satisfactorily according to specification it is also noted with satisfaction and communicated to the management tendent board.

You have to note that a continuous feedback is necessary and you must allow workers to receive complete job feedback both positively and negatively. If they receive negative feedback alone it may not be motivating.

3.2 Importance Of Feedback

We all need feedback on our activities so I say that employees need feedback about their performance. It is because such feedback is advantageous to them in the following ways:

1. It helps them know how well they are meeting their own goals.
2. It shows that others are interested in what they are doing and
3. When that performance is satisfactory, it enhances their self-image and feeling of success.
4. Performance feedback leads to both improved performance and improved attitudes.

3.3. Feedback And Management Control

You must realize that Feedback is the major purpose of management control. It is an informational input that tells us whether the system is indeed at least achieving a steady state and not in danger of construction. Feedback is therefore essential for us to check the effectiveness of communication. One can never be sure whether or not a message has been effectively encoded, transmitted, decoded and understood until it is confirmed by feedback. Similarly according to Knoontz, O. Dounell and Heinz Wehrich (1984) feedback also indicate whether individuals or organizational change takes place as a result of communication.

3.3.1 A Communication Process Model

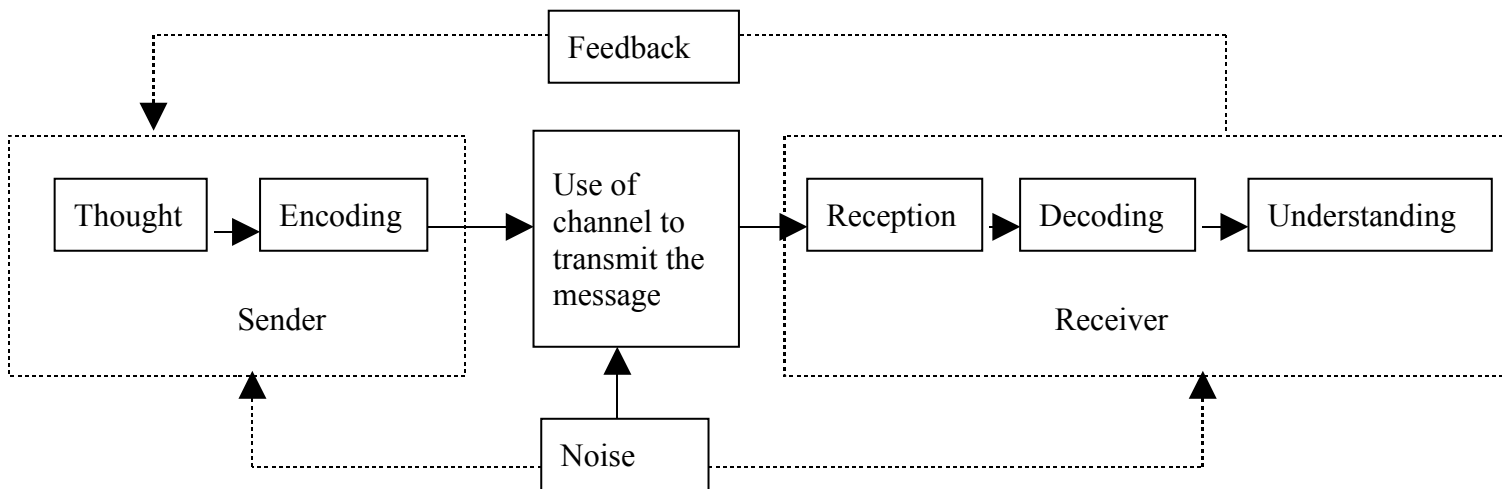


Fig. 20.1 Communication Process Model

Feedback is the transfer of information (messages) from the sender to the receiver.

In an institution there may be a sudden increase in enrolment figures to a state of explosion in such a way that the facilities are over stretched and lecture halls have become inadequate.

We may see a situation where this thought may become a concern which is reported to the head of department. This thought may then give rise to a situation here the head of department discusses and the problem with the dean, who in turn raises a memo to management. Through these channels the message is transmitted until it has received adequate attention by management as members receive and read the memo and react to it. Suggestions are made to expand some

either lecture halls or build additional theatre after which a decision is made. In some cases there may be a lot of noise you needn't see the noise in this context as ordinary noise alone. You may see it as unaffection of obstruction of understanding may be as a result of prejudice which may hinder development.

3.3.2 Control As A Feedback System

Management control is usually perceived as a feedback system similar to that which operates in which the usual house hold thermostat. You can see this more clearly by looking at the feedback process involved in management control as shown in fig 20.2.

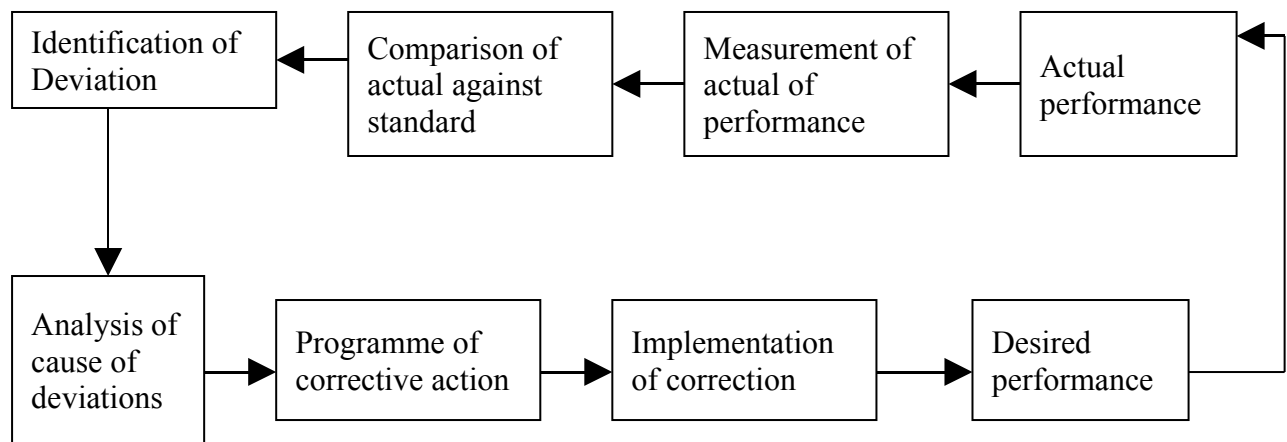


Fig. 20.2 Feedback Loop Of Management Control

We have discussed about deviation from the project specifications. As soon as such deviation are identified by either the internal or external consultants or even the project supervision, such deviation should be reported to the appropriate personnel, so that it will be subjected to analysis and the causes of deviations which we have earlier in this unit could be identified.

These deviation can be in the area of roofing, concrete mix, wood and plank types of size and electrical wiring. The next stage is to prepare a programme that will remove the deviation as we have discussed earlier. We have said that if the deviation is in the area of roofing the defective area will be removed and the specified sheets used for roofing.

For a beam that has failed you need to do something urgently by introducing column and as soon as the implementation of connection

has taken place the performance of the project will be put to test and to desired performance will be compared again with actual performance. In doing this you need the measure the actual performance of the building and compare it with specification given by the quantity surveyor. The feedback loop of management control is a continuous one.

EXERCISE 4.1

1. Define feedback
2. Establish the relationship between feedback and project implementation.

3.4 Feedback Loop In Education Management

Feedback loop is the final linking in the communication process which puts the message back into the system as a check against misunderstanding. Also feedback is the degree with which you are carrying out the work activities required by the job results the individuals obtaining direct and clear information about the effectiveness of his or her performance.

3.5 Types Of Feedback

- i. High feedback such as an electronic firm worker who assessments computer in computer centre and then test them to determine it they operate properly.
- ii. Low feedback such as electronic workers who assemble computers, radio or television and put them route and item to qualify control inspector who tests them for proper operations and make needed adjustments.
- iii. Open feedback channel. This is situation when employees not only learn how well the performance in the execution of project but also whether their performance is improving, deteriorating or remaining at constant level.

EXERCISE 4.2

1. Mention and describe the types of feedback.

3.6. Organizational Feedback

Project implementation is a team work between workers. Organizational development relies heavily on feedback to participants so that they will have concrete data on which to base decisions. Feedback encourages them to understand a situation and take self corrective action rather than walk for some one else to tell them what to do.

And example is a feedback exercise in an organizational development programme. Participants are separated into two groups, one group is involved on expansion of lecture hall and the other group is working on child development centre construction in the organization. Both groups are asked to develop answer to the following questions.

What characteristic best describe our group?

What characteristic best describe the other group?

How will the other group describe us?

After the separate groups have prepared their answers, they assembled and presented their answers to the other group. They gave concrete feedback about impression each group has of the other, and there usually a major misunderstandings. In the presentation no arguments are allowed. Questions are accepted only to clarify what the other group is saying. The groups are separated against to discuss other questions.

How did these misunderstandings occur?

What can we do to correct them?

With this new feedback, the groups met to develop specific plans of action for solving their misunderstandings. In each instance feedback about themselves is the basis for the assimilation.

EXERCISE 4.3

What is the advantage of working as a team?

3.6.1 Survey Feedback

Survey feedback is the first step using job satisfaction information is to communicate it to all managers so that they can understand it and prepare to use it. Managers will be the ones to make any changes suggested by the data, so they want to see the evidence in order to make their own judgments (Robbins 1999). The recommendations of job satisfaction specialists are helpfully but managers must make the final decisions.

3.6.2 Feedback To Employees

When corrective action is taken as a result of the survey, details of what was done should be shared with employees as soon as possible. Davis (1981) told us that only in this way will the people who participated feel that management listened to them and took action on the basis of their ideas. This also assures employees that their ideas really were wanted and are wanted still. In fact, good publicity to manager and employees is essential from start to finish in a job satisfaction study – to explain what the study intends to accomplish, report the information gathered, and to announce what corrective action has been taken.

One thing is sure, if job satisfaction survey is made, management should be prepared to take action on the results. Employees feel that if they cooperate in stating their feelings, management should try to make some of the improvement they suggest. A sure way to close off future expansions of employees' opinion is to fail to take action on the opinions already given. It should be remembered that management asked employees for their ideas so employees are justified in feeling that action will be taken on the least some of them.

EXERCISE 4.4

Describe briefly how effective feedback affects employees.

4.0 Conclusion

No organization can survive without effective feedback mechanism because it is through feedback that corrective measures are taken and the system is reinforced.

Like the system analysis theory (input – process – out put) the output is improved on through the feedback of the consumers complaint into

the organization/system. It is through the feedback that the products of education are improved upon, policies amended and when necessary replaced.

5.0 Summary

In this unit you have learnt quite a lot about feedback, its features and importance in organization and project development. It has been explained to you that the final link in the communication process is a feedback loop, so that when communication source decodes the message is put back into system the feedback and how feedback brings about control in management.

6.0 Further Readings

Harold K. Cyril, O Heinz W. (1984) Eight Edition
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Student Edition Mc Grawill-Hil International Book Company.

Robbins S. P. (1999) Organizational Behaviour Concept
Controversies Application.

Prentice Hall of India Private Limited; U.S.A.

7.0 Tutor Marked Assignment

1. Describe the effect of feedback to employees.
2. What is the importance of feedback in project management?