MANAGING PROJECTS: A UNIQUE APPROACH TO CHANGE

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Abstract

Managing projects: a unique approach to change -as a managerial initiative is a response to a dynamic and changing of technological advancements in research and development and the utilization of large scale human endeavor. As a vehicle of change, it provides the forward progress needed by firms and companies to achieve the very objectives of organizational initiatives through a dedicated team-working strictly according to budget and plan. This paper discussed project management as a perfect response to change in terms of the project management processes, the process groups, initiating process, planning process, executing process, control process and the closing process. Finally, conclusion was drawn with guiding procedures to include:- clear definition of project objectives, single point of authority, establishment of terms of references which specify the objectives, scope, time frame and resources required etc. By these, the various goods and services produced arc projected for societal advancement.

Introduction

In recent times, project management has made significant contribution to the practice of management. This contribution led to the popularity of project management especially, when related to the very forces in our society which now requires new methods of management. Of these very forces, two are very paramount. They include:

i) The growing demand for complex, sophisticated and customized goals and services.

ii) The exponential expansion of human knowledge (Wogu, 2007).

The potential complexity and customization of a desired product depends on the integration of product design with production whereas the expansion of knowledge allows an increasing number of academic disciplines to contribute to the development of goods and services. Both call for high level of coordination and cooperation between groups of people who are involved (Wogu, 2007).

As a managerial initiative, it is a response to a dynamic and changing of technological advancements in research and development and the utilization of large scale human endeavor. As a vehicle of change, project management provides the forward progress needed by companies and organizations to achieve the very objectives of organizational initiative through a dedicated team, working strictly according to a timetable and budget. In the mist of change, it provides the initiative and clear strategy for driving decision-making.

Project management is recognized as a special process that differs in approach from general management focusing on the completing of defined work within given time constraints and cost limit. It provides an organization with powerful tools that improves the organization's ability to plan, organize; implement and control activities and the ways human and non-human resources are utilized. Project management as a specialized management technique for planning and controlling projects, according to Wogu (2007) provides:

1. An appropriate way to bring about sudden, revolutionary or purposive

change.

2. A suitable approach for handling one-off tasks.
3. A realistic mode for evaluating a new scheme.

Managing Projects: A Unique Approach to **Change**

The guide to project management body knowledge defines management as the application of knowledge, skills, tools and techniques to project activities in order to meet or exceed stakeholder needs and expectations, invariably it involves the balancing of competing demands among:

i. Scope, time, cost and quality
ii. Stakeholders with differing needs and expectations
iii. Identified requirements (needs) and unidentified requirements (expectations).

Projects are complex and of multi-disciplinary tasks, therefore, project management must of a necessity be completely preoccupied with the problem of integration, while the managers are occupied with process interaction i.e from one point to another (Iroegbu, 2007). The concept of integration as applicable to most projects is based on the fact that a project is inevitably a system, in that it consist of many interrelated and interconnected parts or elements which must function together as a whole. The process of system integration is thus, identified as an important management function of the project manager. *This is* so because of the rapid advances in technology and increased complexity in project systems to be managed which requires an increased need for both greater specialization fas against differentiation) and lighter coordination (for integration).

In project management, it is agreeable that the sole authority for planning resources; allocation and control of a time and budget limited enterprise is rested in a single individual. This._ single point authority and responsibility constitutes the greatest strength of project management, as it also could be its greatest weakness. The pressure for the completion of an often almost impossible; task must of necessity be focused on how effectively the project manager and his team carries out their jobs. Therefore, project management is not a panacea and unfortunately does not always work. Its use does not always guarantee the success of a task rather it takes a great deal of dedication and considerable effort on the part of an experienced and talented project team to ensure that a project will be a success.

Again, project management according to Onwusonye (2005) is a timely response designed to:

i. Provide a sustained, intensified and integrated management to large-scale endeavor and complex ventures.
ii. Pull together a combination of human and material or non-human resources into a temporary organization to achieve a specified purpose.

Iii Establish a project organization. These according to him, are in two ways:

a. for a limited period of time and to accomplish a well defined and specific set of objectives.
b. to bring a new idea for a product through its conceptual and development phases to the point where the new product is available for use.

Where these carefully defined objectives are accomplished, the project is complete and the project organization is terminated (turnover and start-up stage).

Project Management Process

Project management as earlier stated is, regarded as an integrative endeavour of work interactions which may be straightforward or uncertain, often requiring trade-off amongst competing project objectives and alternatives. Therefore an action or failure to lake an action in one area will usually affect other areas (Adindu, 2006).

A project is composed of a number of interlinked processes of series of action which must be performed by the project team to achieve the project. Thus, these series of actions which are interlinked emphasize the importance of integration and the need to manage the interactions between the processes of actions in order to have a successful project management.

Project management processes are concerned with describing and .organizing the work of the

project. The very basic purpose of managing these processes is to achieve integration and ensure that the various elements of the project are properly coordinated.

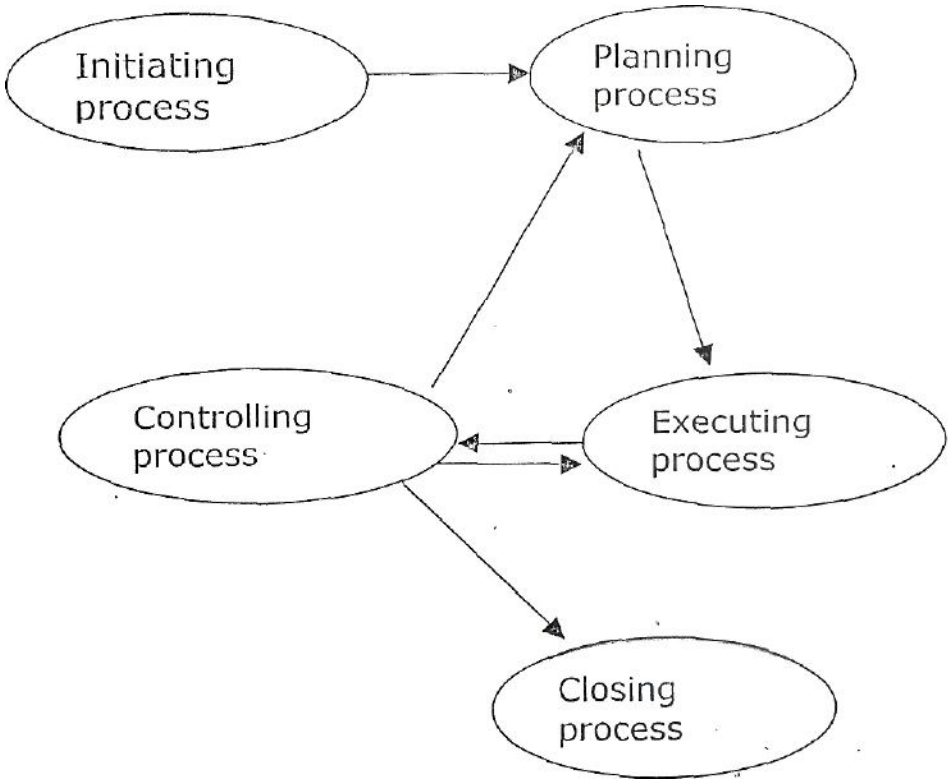
Project Management Process Groups

Project management processes according to Akpan & Chizea (2002) are most times organized into five groups of one or more processes each, namely:

i) Initialing process
ii) Planning process
iii) Executing process
iv) Controlling process
v) Closing process

The figure below shows the links among the process groups.

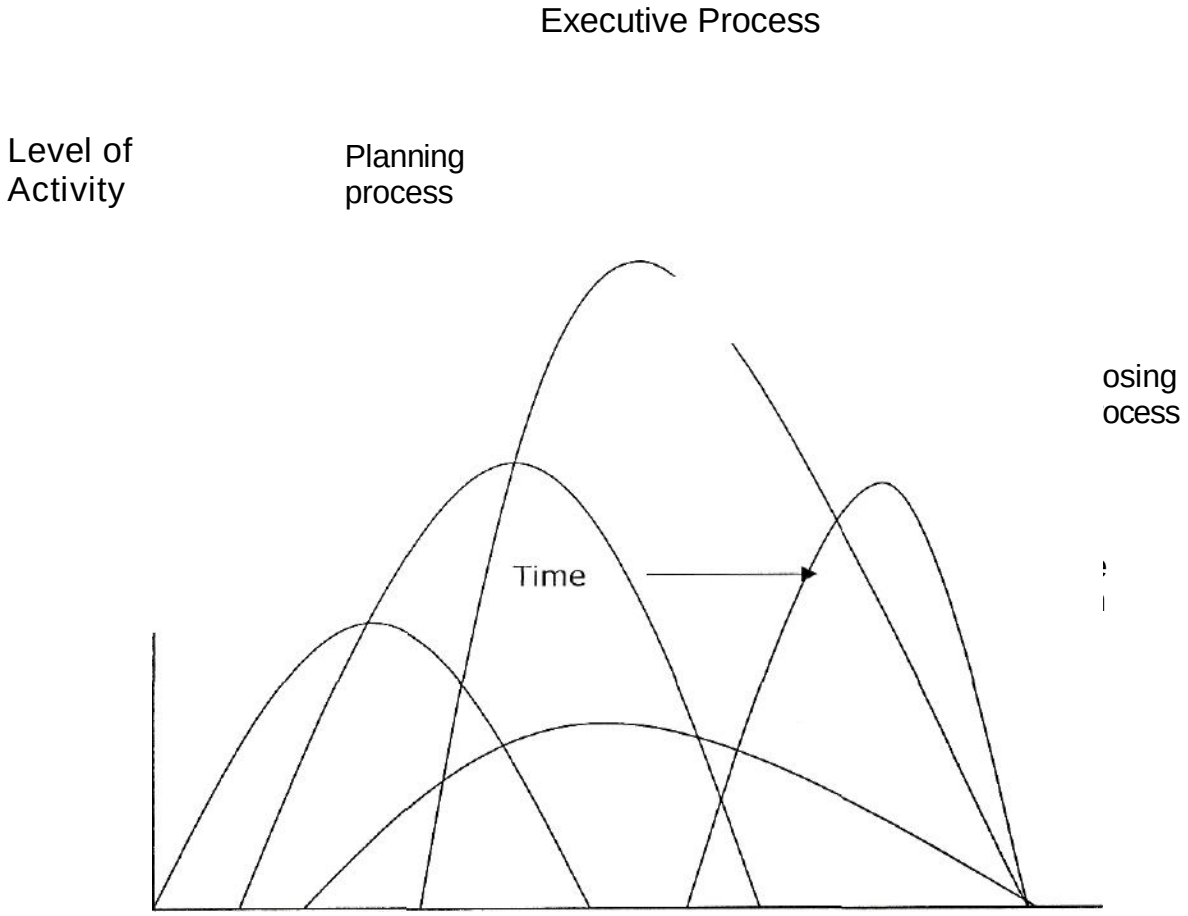
Figure 1: Links among the Process Group



There processes as shown in fig 1 interact with each other, though it could be said that each process occurs at least once in every project phase and may involve efforts from one or more individual or group of individuals based on the need of the project. Although it may be customary to present the processes as discrete elements with well defined interfaces. In practice, they are not discrete or one time events, they overlap and interact with varying levels of intensity throughout each phase of the project. The groups are linked by the results they produce. The result or outcome of one becomes the input into another. For instance as illustrated in Fig. 1, planning may provide executing with a documented project plan early in (he project and then provide documented updates to the plan as the project progresses. This takes us to the interactions between project phases. See figure two.

Figure 2:

Interaction between phases



Initiating Process

This is the initial part of interaction which recognizes that a project or phase should begin and the commitment to do so. Therefore, it is one thing to begin to think about projects, and another to think of its funding-commitment.

Planning Process

Planning is a central feature of project management and because the project involves doing something which has not been done before, there is the need to prepare for the commitment of resources in a most economic manner. Though project management is not primarily of planning, there are relatively more processes in this section, but then it is very important that the amount of planning performed should be consumerate with the scope of the project and the usefulness of the information developed.

These processes are subject to frequent iterations prior to completing the plan. For instance if the initial completion dale is unacceptable, project resources cost or even scope may need to be redefined. In addition, planning is not an exact science as two different teams could generate very different plans for the same project.

Some planning processes or the core planning processes have clear dependences that require them to be performed in essentially the same order on most projects. They may be iterated several times during any one phase of a project. For example, activities according to Adindu (2006) must be defined before they can be scheduled or costed. These core planning processes include:

a) Scope **Planning:-** The process of developing a written scope statement as basis for future project decisions in particular is the criteria used to determine if the project or phase has been completed successfully.

b) **Scope Definition:-** This involves subdividing major project deliverables (as identified in the scope statement) into smaller, more manageable components in order to:

Improve the accuracy of cost, time and resources estimated.
Define a base line for performance measurement and control.
Facilitate clear responsibility assignments.

c) Activity Definition:- This involves identifying and documenting the specific activities that must be performed in order to produce the deliverables and sub-deliverables identified in the work breakdown structure. Implicit in this process is the need to define the activities such that the project objective will be met.

d) Activity Sequencing:- Activity sequencing involves identifying and documenting interactively depences. Activity must be sequenced accurately in order to support later development of a realistic and achievable schedule.

e) **Activity Duration Estimating:-** Activity duration estimating involves assessing the number of work periods likely to be needed to complete each identified activity (the person or group on the project team who is most familiar with the nature of a specific activity should make or at least approve the estimate. Estimating the number of work periods required to complete an activity will often require consideration of elapsed line as well.

t) Schedule Development:- Schedule Development means determining start and finish dates for project activities. If the start and finish dates are not realistic, the project is unlikely to be finished as scheduled. The schedule development process must often be interacted (along with the processes that provide inputs, especially duration estimating and cost estimating) prior to determination of the project schedule.

g) Resource Planning:- This involves determining what physical resources (people, equipment, materials) and what quantities of each should be used to perform project activities. It must be closely coordinated with cost estimating.

h) Cost Estimating:- Cost estimating involves an approximation (estimate) of the costs of resources needed to complete project activities. However, care should be taken to distinguish between cost estimating -which involves developing an assessment of the likely quantitative result; how much will it cost the performing organization to provide the product or service involved, and pricing -which involves a business decision?; how much will the performing organization charge for the project or service?

i) **Cost Budgeting:** -This involves allocating the overall cost estimates to individual work items in order to establish a cost baseline for measuring performance. The process requires the following inputs such as cost estimates, while the various techniques are used for developing project, cost estimates are also used to developing cost budgets for work items. Costing baselines, a time phased budget used to measure and monitor cost performance on the project is usually a defined output from cost budgeting.

j) **Project Plan Development:-** Project plan development will involve using the outputs of other planning processes to create a consistent, coherent document that can be used to guide both project execution and project control. This process is almost and always iterated several times as the initial draft may include generic resources and undated durations which the final plan reflect specific resources and explicit dates. The project plan will perform the following function:

- Guide project
- Document project planning assumption
- Document project planning decisions regarding alternatives chosen
- Facilitate communication amongst stakeholders
- Define key management reviews as to content, extent and
- Provide a baseline for progress measurement and control (Cleland, 1999; Meredith and

Mantel, 1989 and Agbato, 1990).

Apart from the core planning processes, we also have interaction among other planning process which are more dependent on the nature of project. For example, there are some projects which may have little or no identifiable risks until after most of the planning has been done and recognitions made on the extreme aggressiveness of the cost and schedule targets, they performed intermittently and are needed during project planning as they are not optional. They include:

a) **Quality Planning:-** Quality planning involves identifying which quality standards are relevant to the project and determining how to satisfy them. It is one of the key facilitating processes during project planning and should be performed regularly And in parallel with other project planning processes. The project team should be aware of the fundamentals of modern quality management.

b) Organization Planning:- This process involves the identifying, documenting and assigning project roles, responsibilities and reporting relationships. On most projects, the majority of organizational planning is done as part of the earliest project phases. Though, it is important that the results of this process should be reviewed regularly throughout the project to ensure continued applicability. If the initial organization is no longer effective it should be revised promptly. Organization planning should often be tightly linked with communication plan since the projects organizational structure will have major effect on the projects
communication requirements.

c) Staff Acquisition:- Staff acquisition involves getting the human resources, needed
individuals or groups assigned to and working on the project.

d) Communication Planning:- Communication planning involves determining the information and communication needs of the stakeholders, who needs what information, when will they need it and how will it be given to them. On most projects, the majority of communication planning is done as part of the earliest phases, and it is recommended that this process should be reviewed regularly.

e) Risk Identification:- Risk involves the possibility of suffering harm or loss and in project terms its identification is concerned with opportunities (positive outcomes) as well as
threats (negative outcomes). Risk identification consists of determining which risks are likely to affect the project and documenting the characteristics of each. Risk identification is not a one time event, it should be performed on a regular basis throughout the project and it should address both external and external risks.

Internal risks are things that the project team can control or influence such as staffing assignments and cost estimate while external risks are things beyond the control or influence of the project team such as market, and government action. Risk identification may be accomplished by identifying causes and effects (what could happen and what will ensure) or effects-and-causes (what outcomes arc lo be avoided or encouraged) and how each might occur.

f) Risk Quantification:- Risk quantification involves evaluating risks and risk interactions to access the range possible project outcomes. It is primarily concerned with determining which risk event warrants response. Risk quantification is usually complicated by a number of factors which are not limited to the facts that:

i. Opportunities and threats can interact in unanticipated ways.
ii. As single risk, event can cause multiple effects.
iii. Opportunities for one stakeholder (c.g reduced cost) may pose a threat to another (reduced profits)
iv. The mathematical techniques used and can create false impression of precision and reliability.

g) **Risk Response Development:-** Risk response development involves defining enhancement steps for opportunities and responses to threats. Responses to threats generally fall into one of the following categories:

i. Avoidance
ii. Mitigation
iii. " Acceptance

h) **Procurement** Planning:- Procurement planning is the process of identifying which projects needs can best met by procuring products or services outside the project organization. It involves consideration of whether to procure, how to procure, what to procure, how much to procure and when to procure it.

Executing process

The executing processes include core processes and facilitating processes and they interact to include:

a. **Project Plan** Execution:- The project plan execution is the primary process for project's budget being expended in the performance of this process and importantly, the project manager and the project management team must coordinate and direct the various technical and organizational interfaces that exist in the project. It is this aspect of the project process that is most directly affected by the project application area in that the product of the project is actually created here.

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b. **Scope Verification:** -Scope verification is the process of formalizing acceptance of the , project scope by the stakeholders (sponsor, client, customer, etc). It requires reviewing work products and results to ensure that all were completed, correctly and satisfactorily. If the - project is terminated early, the scope verification process should establish and document the level and extent of completion. It is important then to establish that scope verification is different from quality control. While scope verification concerns the acceptance of the work . results, quality control is primarily concerned with the correctness of the work results.

c. **Quality Assurance:-** Quality assurance is all the planned and systematic activities, which are implemented with the quality system to provide confidence that the project will satisfy the relevant quality standards.

d. **Team Development:** -Team development includes both enhancing the ability of stakeholders to contribute as individuals as well as enhancing the ability of the team to function as a team. Individual development (managerial and technical) is the foundation necessary to develop the team. Development, as a team is critical to the project's ability to meet its objectives. However, this is usually complicated when individual team members are accountable to both a functional manager and to the project manager.

e. **Information Distribution:-** Information distribution involves making needed information available to project stakeholders in a timely manner. It includes implementing the communication management plan as well as responding to unexpected request for information.

Control Process

Project performance must be measured regularly to identify variances from the plan. Variances are fed into the control process in the various project areas of integration, scope, time, cost, quality, human resources, and communication risk and procurement management. Most often, these variance are so significant that they jeopardize the project objectives requiring adjustments to be made to the plan repeating the appropriate project planning processes. Controlling also includes taking preventive actions in anticipation of possible problems.

a. Overall Change Control:-The overall control is concerned with:

i. Influencing the factors which create change to ensure that changes are beneficial
ii. Determining that a change has occurred

iii. Managing the actual changes when and as they occur_

Overall Change Control Requires:

i. Maintaining the integrity of the performance measurement baseline
ii. Ensuring that changes to the product scope are reflected in the definition of project scope
iii. Coordinating changes across the project management vital areas (knowledge access).

b. Scope Change Control:-The scope control is concerned with:

i. Influencing the factors, which creates scope changes to ensuring that changes are beneficial.
ii. Determining that a scope change has occurred
iii. Managing the actual change when and if they occur. Scope change control must be thoroughly integrated with the processes of time control, cost controls, quality control, and risk change control and contract administration.

c. Schedule Control:-Schedule control is concerned with:

i. Influencing the factors which create schedule changes to ensure that changes are beneficial
ii. Determining that the schedule has changes
iii. Managing the actual changes when and as they occur. Schedule control as a matter of fact must be thoroughly integrated with the other control processes as mentioned above.

d. Cost Control:-This is concerned with:

i. Influencing the factors which create changes to the cost baseline to ensure that changes are beneficial
ii. Determining that the cost baseline has changes
iii. Managing the actual change when and as they occur

Cost Control Includes:

i. Monitoring cost performance to detect variance from plan.
ii. Ensuring that all appropriate changes are recorded accurately in the cost baseline.
iii. Preventing incorrect, inappropriate or unauthorized changes from being included in the cost baseline.
iv. Informing appropriate stakeholders of authorized changes.

Cost control includes searching out the "why" of both positive and negative variances. It must be thoroughly integrated with the other control process.

e. Quality Control:- This involves monitoring specific project results to determine if they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory results. It should be performed throughout the project.

The project management team should have a working knowledge of statistical quality control to help evaluate quality control output. Among other subjects, they should know the differences between:

a. Prevention and inspection.
b. Attribute sampling and variable sampling.
c. Special causes and random causes.
d. Tolerance and control limits.

f. Performance Reporting:- This involves collecting and disseminating performance information in order to provide stakeholders with information about how resources are being used to achieve objectives. This process includes:

a. Status reporting.
b. Progress reporting.
c. Forecasting.

Performance reporting should generally provide information on scope , schedule, cost, quality and even risk.

g. **Risk Response Control:-** risk response control involves executing the risk management plan in order to respond to risk events over the course of the project. When changes occur, the basic cycle of identify quantity and respond is repeated.

Closing Process

The closing processes which are about the final actions to be taking in the life of the project interact to include:

a. **Administrative Closure:-** The project or phase after either achieving its objectives or being terminated for the reasons requires closure administrative. Closure connotes verifying and documenting project results to formalize acceptance of the production of the project by the sponsor, clients or customer. It includes project records ensuring that they reflect final specifications, analysis of project success and effectiveness and achieving such information for future use. Administrative closure activities should not be delayed until project completion. Each phase of the project should be properly closed to ensure that important and useful information is not lost

b. **Contract Close-Out:-** The contract close-out is similar to the administrative closure
described above in that it involves both product verification (was all the work completed correctly and satisfactory? and administrative close-out (updating of records to reflect final result and achieving of such information for future use). The contract terms and conditions may prescribe specific procedure for contract close-out. Early determination of a contract is a special case of contract close-out.

Recommendations

The following recommendations are hereby proffered.

They are:

(1) The fundamentals of modern quality management should be made known to the project team.

(2) Organization planning should often be lightly linked with communication plan since the project organizational structure will have major effect on the project communication requirement.

(3) On most projects, the majority of communicational planning is done as part of the earliest phases, and it is hereby recommended that this process should be reviewed regularly.

Conclusion

The concern obviously, is that of how we can bring about the various goods and services, which we produce in the course of our societal advancements. Projectization of efforts in this regard of change provides an adequate model, which assist managers to secure the very basic goals or objectives of such initiatives of advancement. It provides a unique approach to change not only in terms of its emphasis on a temporary pack of efforts but also provides a comprehensive interaction of these temporary project oriented tasks, interdisciplinary and cross functionary team play. It provides a proper perception of roles and responsibilities in terms of levels of participation. The projectization phenomenon through a most salient characteristic of birth, growth or maturation and eventual demise provides a more comprehensive conceptualization of work, budgetary requirements and. organizational actions which are required to achieve well defined objectives in the mist of prevailing constraint.

This process of managing our complex and multidisciplinary project activities is a response initiative to a dynamic environment of technological advancements involving large-scale utilization of human and non-human resources. Project management provides a well-articulated check iist of procedures which guide managers in the proper definition and execution of the work elements in a complex and multi-disciplinary effort, bringing about a purposive change. These guiding procedures could well be summarized to include:

a) A clear definition of project objectives.

b) A single point of authority.
c) Establishment of terms of references which specify the objectives, scope, time frame and resources required.
d) Proper definition and establishment of what the project should achieve and consideration on how to achieve it.
e) While planning, quality attention is given to details to ensure that the project output or outcome does what it is supposed to or is fit for its purpose.
f) Provides for proper monitoring of cost while the project is in progress.
g) Effective planning of time scales
h) Monitoring of in-progress cost, time scales and quality is a major consideration.
i) Project acceptance is guaranteed.
j) project success and lessons are properly evaluated.

References

Adindu, G.O (2006). Introduction to engineering design synthesis (unpublished lecture material), Department of Building, Abia State University Uturu, Nigeria.

Agbato, J.O (1990). *The nature of management.* Lagos: Abiola Bookshop Press.

Akpan, E.O.P & Chizea, E.F (2002). *Project management: Theory and practice.* Owerri: Futo Press.

Cleland, D.L (1999). *Project Management'. Strategic design and implementation.* New

York: McGraw-Hill.

Iroegbu, A.N (2007). Construction methods and equipment management (unpublished lecture material) Department of Building, Abia State University-Uturu.

Meredith, J.R & Mantel, S.J (1989). *Project management: A management approach.* New York: John Wily and Sons.

Onwusonye, S.I.J (2005). *Project Planning in the Construction Industry, theory and practice.* Owerri:. International Education Books and Publishers.

Wogu, C.L (2007). Introduction to project management, (unpublished lecture material) Department of. Estate Management, Abia State University-Uturu, Nigeria.