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**Assignment questions**

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**Module Six**

Assignment for module Six presented to Africa Institute for

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1. **a. When should an audit be conducted during a project? Is there a “best” time?**

The project audit is a thorough examination of the management of a project, its methodology and procedures, its records, its properties, its budgets and expenditures, and its degree of completion. It may deal with the project as a whole, or only with a part of the project.

Audits are typically performed by a designated audit department, the **Project Management Office**, an empowered **Steering Committee** or an external auditor.  A project audit provides an opportunity to uncover the issues, concerns and challenges encountered in the execution of a project. It affords the project manager, project sponsor and project team an interim view of what has gone well and what needs to be improved with the project to successfully complete it. If done at the close of a project, a project audit can be used to develop success criteria for future projects by providing a forensic review. This review will provide an opportunity to learn what elements of the project were successfully managed and which ones presented some challenges. This will help the organization identify what it needs to do so that mistakes are not repeated on future projects.

Given that all projects of significant size or importance should be audited; the first audits are usually done early in the project’s life. The sooner a problem is discovered, the easier it is to deal with. Early audits are often focused on the technical issues in order to make sure that key technical problems have been solved or are under competent attack. Ordinarily, audits done later in the life cycle of a project are of less immediate value to the project, but are of more value to the parent organization. As the project develops, technical issues are less likely to be matters of concern. Conformity to the schedule and budget becomes the primary interest.

Regardless of whether the project audit is conducted mid-term on a project or at its conclusion, the process is similar. It is generally recommended that an outside facilitator conduct the project audit. This ensures confidentiality; but also provides the team members and other stakeholders with the opportunity to be candid. They know that their input will be valued and the final report will not identify individual names, rather it will only include facts. The best time for conducting audits is just before completing each of the project phases or milestones (**Michael Stanleigh (2009).**

The main goal of an audit is to inspect and evaluate the current state of project realization, find out to what extent it complied with defined criteria for project success and identify opportunities for improving the project realization and management. This inspection can be performed after the project completion or after the end of one project realization stage, or it can be performed during the project realization.

b**. What occurs in each stage of the audit life cycle?**

Like the project itself, the audit has a life cycle composed of an orderly progression of well-defined events. There are six of these events.

1. **Project Audit Initiation:** This step involves starting the audit process, defining the purpose and scope of the audit, and gathering sufficient information to determine the proper audit methodology.
2. **Project Baseline Definition**: This phase of the cycle normally consists of identifying the performance areas to be evaluated, determining standards for each area through benchmarking or some other process, ascertaining management performance expectations for each area, and developing a program to measure and assemble the requisite information.
3. **Establishing an Audit Database**: Once the baseline standards are established, execution of the audit begins. The next step is to create a database for use by the audit team. Depending on the purpose and scope of the audit, the database might include information needed for assessment of project organization, management and control, past and current project status, schedule performance, cost performance, and output quality, as well as plans for the future of the project.

Because the purpose and scope of audits vary widely from one project to another and for different times on any given project, the audit database is frequently quite extensive. The required database for project audits should be specified in the project master plan. If this is done, the necessary information will be available when needed. Nonetheless, it is important to avoid collecting “anything that might be useful,” since this can place extraordinary information collection and storage requirements on the project.

1. **Preliminary Analysis of the Project.** After standards are set and data collected, judgments are made. Some auditors eschew judgment on the grounds that such a delicate but weighty responsibility must be reserved to senior management. But judgment often requires a fairly sophisticated understanding of the technical aspects of the project, and/or of statistics and probability, subjects that may elude some managers. In such an event, the auditor must analyze the data and then present the analysis to managers in ways that communicate the real meaning of the audit’s findings. It is the auditor’s duty to brief the Project Managers on all findings and judgments before releasing the audit report. The purpose of the audit is to improve the project being audited as well as to improve the entire process of managing projects. It is not intended as a device to embarrass the Project Managers.
2. **Audit Report Preparation:** This part of the audit life cycle includes the preparation of the audit report, organized by whatever format has been selected for use. A set of recommendations, together with a plan for implementing them, is also a part of the audit report. If the recommendations go beyond normal practices of the organization, they will need support from the policy-making level of management. This support should be sought and verified before the recommendations are published. If support is not forthcoming, the recommendations should be modified until satisfactory.
3. **Project Audit Termination**: As with the project itself, after the audit has accomplished its designated task, the audit process should be terminated. When the final report and recommendations are released, there will be a review of the audit process. This is done in order to improve the methods for conducting the audit. When the review is finished, the audit is truly complete and the audit team should be formally disbanded.

The purpose of a project audit is to identify lessons learned that can help improve the performance of a project or improve the performance of future projects by undertaking a forensic review to uncover problems to be avoided. In this way, project audits are highly beneficial to the organizations.

1. **a. What items should be included in the audit status report?**

The formal audit report may be presented in various formats, but at a minimum, it should contain comments on the following items: -

1. **Introduction to current status of the project.** Does the completed work actually match the planned level of completion? This section contains a description of the project to provide a framework of understanding for the reader. Project objectives (direct goals) must be clearly delineated. If the objectives are complex, it may be useful to include explanatory parts of the project proposal as an addendum to the report.
2. **Future Project status.** Are significant scheduled changes likely? If so, indicate the nature of the changes. This section contains the auditor’s conclusions regarding progress together with recommendations for any changes in technical approach, schedule, or budget that should be made in the remaining tasks. Except in unusual circumstances, for example when results to date distinctly indicate the undesirability of some preplanned task, the auditor’s report should consider only work that has already been completed or is well under way. No assumptions should be made about technical problems that are still under investigation at the time of the audit. Project audit reports are not appropriate documents in which to rewrite the project proposal.
3. **Status of crucial tasks.** What progress has been made on tasks that could decide the success or failure of the project?Current status should be reported as of the time of the audit and, among other things, should include the following measures of performance:

**Cost:** This section compares actual costs to budgeted costs. The time periods for which the comparisons are made should be clearly defined. The report should focus on the direct charges made to the project. If it is also necessary to show project total costs, complete with all overheads, this cost data should be presented in an additional set of tables.

**Schedule:** Performance in terms of planned events or milestones should be reported. Completed portions of the project should be clearly identified, and the percentage completion should be reported on all unfinished tasks for which estimates are possible.

**Progress:** This section compares work completed with resources expended. Earned value charts or tables may be used for this purpose if desired. The requirement here is for information that will help to pinpoint problems with specific tasks or sets of tasks. Based on this information, projections regarding the timing and amounts of remaining planned expenditures are made.

**Quality:** Whether or not this is a critical issue depends on the type of project being audited. Quality is a measure of the degree to which the output of a system conforms to pre-specified characteristics. For some projects, the pre-specified characteristics are so loosely stated that conformity is not much of an issue. At times, a project may produce outputs that far exceed original specifications. For instance, a project might require a subsystem that meets certain minimum standards. The firm may already have produced such a subsystem—one that meets standards well in excess of the current requirements. It may be efficient, with no less effectiveness, to use the previously designed system with its excess performance. If there is a detailed quality specification associated with the project, this section of the report may have to include a full review of the quality control procedures, along with full disclosure of the results of quality tests conducted to date.

1. **Risk assessment.** What is the potential for project failure or monetary loss? This section should contain a review of major risks associated with the project and their projected impact on project time/cost/performance. If alternative decisions exist that may significantly alter future risks, they can be noted at this point in the report.
2. **Information pertinent to other projects** (Critical Management Issues): What lessons learned from the project being audited can be applied to other projects being undertaken by the organization?

All issues that the auditor feels require close monitoring by senior management should be included in this section, along with a brief explanation of the relationships between these issues and the objectives of the project. A brief discussion of time/cost/performance trade-offs will give senior management useful input information for decisions about the future of the project.

1. **Caveats, Limitations, and Assumptions of the audit.** What assumptions or limitations affect the data in the audit? This section of the report may be placed at the end or may be included as a part of the introduction. The auditor is responsible for the accuracy and timeliness of the report, but senior management still retains full responsibility for the interpretation of the report and for any action(s) based on the findings. For that reason, the auditor should specifically include a statement covering any limitations on the accuracy or validity of the report.

Auditor’s report should contain a clear written expression of significant observations and comments, suggestions/recommendations based on the policies, processes, risks, controls and transaction processing taken as a whole and managements’ responses. It should present the audit findings, and discuss recommendations for improvements. The auditor should make suggestions for prevention or correction of the deficiencies or gaps identified.

b**. What are the essential conditions of a credible audit?**

The credibility of audits is very important as it affects not only the project(s) being audited, but also the whole organization. In order to secure the credibility of audits and protect donors and investors, it is important that auditors, audit clients and shareholders function as a whole. The following conditions when taken into considerations will give credibility to an audit exercise.

**If senior management and the project team are to take the audit seriously, all information must be presented in a credible manner. The accuracy of data should be carefully checked, as should all calculations. The determination of what information to include and exclude is one that cannot be taken lightly.**

**Research the Audit Area -** It is essential to understand the business process or function to be audited. If not familiar with it, there is need to thoroughly research the process or function to fully understand the subject matter. The audit firm should review the internal procedures, search the internet for resources, and seek help from subject matter experts.

**Conduct process walk-throughs -** Armed with a working understanding of the process or function, an auditor has to conduct a face-to-face walk through with the auditee. Identifying key project objectives, methods employed to meet objectives, and applicable rules or regulations. A walkthrough may include a tour of facilities. You may gather background information relative to the nature, purpose, volume, size, or complexity of automated systems, processes, or organizational structure. You might scan documents or records for general condition. All these activities provide opportunities to interface with the auditee and build rapport before the formal entrance.

**Map Risks to the Organization, Process, or Function -** Ask the auditee what their concerns are. Through research and interviews, you can identify risks to meeting project objectives and controls employed to mitigate those risks. Rate risks with the auditee based on probability of occurrence and potential impact. Consider control design, gaps, or mitigating factors to determine if the control system effectively mitigates risks.

**Obtain Data Prior to Fieldwork -** This has become a principal focus of recently. The audit firm should emphasize on data in their initial requests for information. They should perform data analysis before they begin field work. Identifying anomalies to confirm a condition or weakness early helps in target testing and optimize sample selections.

1. **How does an understanding of how people learn affect project audits and evaluations**

The word audit sometimes has a negative connotation to it, especially to the ears of the person undergoing it. Fearing an audit is a natural reaction. Many people who failed an audit in the past can only attest to how nerve-wracking the process can be. For a project manager, an audit is like a judgment day. This is because work, time and money are at stake. Although it is not always a much anticipated event, an objective understanding of project audit and evaluations can result in a positive outcome, whether a project manager passes or fails it.

A thorough understanding of the process of project auditing and evaluations can simplify and render audits and evaluations much less stressful. Understanding that the goal of an audit will ensure the project adheres to project management standards will make audit and evaluation process meaningful. This means that a project could still result in a positive outcome simply by virtue of undergoing an audit, no matter whether it passes or fails.

An understanding that Project audits are a form of quality control is a plus to audit and evaluations. By scrutinizing the project life cycle, the quality of deliverables can be ensured from design to implementation. This aids in the identification of any unforeseen issues, some of which could potentially derail the entire project. The audit will determine whether or not the design concepts are complete and evaluate them alongside alternative concepts. Designs will also undergo a complete technical assessment prior to purchasing or coding. If an audit occurs during a pilot review, the goal is to determine readiness for pilot testing alongside evaluating whether or not the project is ready for complete implementation. An audit during the final phase, the implementation review, ensures that the new solution is properly implemented on each site.

Auditing different phases of a project’s life cycle can drastically improve the entire project team’s performance. Potential improvements include pinpointing primary concerns, understanding how to fix potential problems and learning how to prevent new problems from recurring. This will improve the project team’s performance now and in the future by training them to identify and prevent similar issues, should they arise. This can also apply to individual performance, as an audit will assess the competency of each team member. Additionally, it will provide team members with an opportunity to grow through meaningful self-analysis, reviews and feedback. The result is a drastically improved performance, enhanced conflict resolution skills and the minimization of future mistakes.

1. **a. What are some of the interdependencies related to a project?**

Project interdependencies are defined as capabilities required for the successful delivery of an individual project, which by extension, affect the success of the overall project portfolio. Interdependencies represents a subset of the overall project risks. Projects are said to be interdependent when the success of a project depends upon other project(s). They are categorized as either dependencies or contributions. Dependencies are the capabilities that the project requires from external sources in order to deliver successfully. While contributions are capabilities that the project needs to deliver to external sources, which impact their delivery capability and in turn affect the health of the overall portfolio of the projects. Some project interdependencies you can expect to encounter are:

**1. Mandatory dependencies -** While dependencies by their very definition mutually rely on each other, a mandatory dependency refers to an activity that doesn’t start until the first one finishes. These are further subdivided into:

**a). Resource dependency:** This is where a project is constrained by the time taken to onboard resources deployed. The project therefore would depend on these resources being released in time to extract potential by balancing agility with the right mix of technical know-how, corporate clout and staffing sufficiency.

**b). Outcome dependency:** An outcome dependency exists if the outcome produced in one project can be used on another project; only if it can be fed into the secondary project in a manner benefitting it.

**2. Internal Dependencies -** Internal Project Dependencies are defined between two project activities. The Project Team, usually, has complete control over project activities. which are divided into

**a). Technology interdependencies:** This is where you decide on the standards for the actual technology in play and leverage it across multiple projects in different proportions. In other words, project A may require diverse technical tools in comparison to project B.

**b). Technical interdependencies:** This dependency occurs when the technical success in one activity affects the probability of success in another activity.

**c). Learning-based interdependencies:** This dependency is the outcome of knowledge transfers from the lessons learned on previous projects.

**3. External Dependencies:** External Project Dependencies are defined between non-project Activities and project activities. The non-project activities are done by people who are external to the Project Team e.g. representatives from Client’s organization, Vendors’ organization or any other external groups. The project activities, on the other hand, are done by the Project Team. The Project Team usually does not have control over non-project activities.

**a. Market interdependencies:** knowing what to build that is of value to your target audience is half the road taken. Market interdependencies lets you combine the functionalities of two or more products and release them into an existing market. Alternately, it lets you innovate with a new design from recycled information such that you can inject the product into a new line altogether to see if the consumer demographic is maximizing its usage.

b. **Why is the life cycle curve often “S” shaped?**

In project management terms, an S-curve is defined as a display of cumulative costs, labor hours or other quantities plotted against time. The name derives from the S-like shape of the curve, flatter at the beginning and end and steeper in the middle, which is typical of most projects. An S-curve is a project management tool that tracks progress over time and allows for a quick visual to determine project status. As the project continues and the S-curve grows, the graph will turn into a historical representation and allow for quick comparison to actual data. An s-curve in project management is typically used to track the progress of a project.

**Why an “S”?**

The s-curve often forms the shape of an “s” because the growth of the project in the beginning stages is usually slow: The wheels are just beginning to turn; team members are either researching the industry or just starting to engage in the first phase of execution, which can take longer at first, before they get the hang of it or before there are kinks to work out.

Then, as more progress is made, the growth accelerates rapidly; creating that upward slope that forms the middle part of the “s.” This point of maximum growth is called the point of inflexion. During this period, project team members are working heavily on the project, and many of the major costs of the project are incurred. After the point of inflexion, the growth begins to plateau, forming the upper part of the “s” known as the upper asymptote; the “mature” phase of the project. This is because the project is mostly finished at this point and is winding down: Typically, only tasks such as finishing touches and final approvals are left at this point.

1. a. **What is “slack” and why is it important?**

Slack is actually a professional term used in project management to help people figure out just how much time is available between the various steps of a project. In project management, it's not about being lazy even though the term slack is usually connected with being lazy and doing nothing. Instead, it tells you just how much time you have to start a particular task in a project to keep the project on time. If you go over the slack time, then you'll be delaying the project. Slack time is created when certain tasks of the project take more time than others. For example, Francisco is working on a large project and he is responsible for creating the marketing materials for the project. Now, Francisco cannot begin his work until the project's prototype has been finalized and all the technical specifics and other specifics of the project have also been finalized with no other upcoming changes. At the same time though, Francisco also needs to make sure he does begin his work on the project so it doesn't delay the project. It usually takes Francisco one week to complete his marketing materials, so he needs to begin his work one week before the due date. The time difference between the time that he absolutely needs to begin the work so the project is not late and the time that he can begin working on his part of the task is the slack time.

## **Why is It Important?**

The slack time is a very important metric that keeps a project on time. Without knowing the slack time, it can be easy for a project to be delayed. With a carefully calculated slack time, however, everybody working on the project will know just how much time he or she has to finish any particular task of a project. If everyone keeps the slack time in mind when working on the project, the project will finish right on time.

You can say that slack time is important to keep the project both on time and within budget. If the project is delayed, then it costs the company more money to finish it. This extra cost can actually prevent the project from being a successful one.

Francisco, for example, can begin anytime during his slack time to keep the project on time. But if he begins after his slack time is over, then he will cause the project to be delayed. And if he delays the project, then the company will need to spend more money on the project as it pays for all the employees that are now waiting for Francisco to finish before they can complete their tasks.

b**. What would you identify as the ethical responsibilities of an auditor?**

Auditors are expected to demonstrate a higher level of ethics and act as an example to others in the profession.

First and foremost, the auditor should “tell the truth.” It is in recognition of the fact that there are various levels of truth associated with any project. The auditor must approach the audit in an objective and ethical manner and assume responsibility for what is included and excluded from consideration in the report. Awareness of the biases of the several parties interested in the project, including the auditor’s own biases; is essential, but extreme care is required if the auditor wishes to compensate for such biases. (A note that certain information may be biased is usually sufficient.) Areas of investigation outside the auditor’s area of technical expertise should be acknowledged and assistance sought when necessary.

The auditor must maintain political and technical independence during the audit and treat all materials gathered as confidential until the audit is formally released. Walker et al. (1980) develop an even stronger case for the “independence” of the auditor. He argued that independence is essential for management’s ability to assemble information that is both timely and accurate. They also list the following steps for carrying out an audit:

* Assemble a small team of experienced experts
* Familiarize the team with the requirements of the project
* Audit the project on site
* After completion, debrief the project’s management
* Produce a written report according to a pre-specified format
* Distribute the report to the PM and project team for their response
* Follow up to see if the recommendations have been implemented

If senior management and the project team are to take the audit seriously, all information must be presented in a credible manner. The accuracy of data should be carefully checked, as should all calculations. The determination of what information to include and exclude is one that cannot be taken lightly.

In performing an audit, the auditor should always strive to be objective in judgment and pronouncements. Only the facts should enter into the assessment of whether conformance exists between criteria and established programs. The auditor should express an opinion on a subject only when it is based on adequate knowledge and honest conviction. In all cases, the facts should speak for themselves. Opinions, when given, should be solidly grounded in objective evidence.

The Audit team leader must assure that he/she and the team members maintain their integrity. They should not accept gifts or entertainment of a nature or degree that might possibly prejudice the audit or affect the relationship between the two organizations (auditee and audit team). Should personality conflicts occur between members of the audit team, the team leader has the responsibility to step in immediately and resolve the conflict to the benefit of the entire audit team and organization being audited.

During the conduct of the audit, auditors often have access to proprietary information of the audited organization. Auditors have a moral obligation not to divulge this information to anyone. Divulging proprietary information is a violation of this moral obligation and is not in the best professional interest of either organization (auditee or audit team). The disclosure betrays a trust and, in so doing, gains a reputation that is not conducive to building better relations for his/her company or for himself/herself.

Auditors must avoid the temptation, during external (second party) audits, to discuss other audits with the people they are presently auditing. To do so is akin to disclosing proprietary information and is in bad taste. Exceptions to this may be taken during internal (first party) audits if part of the audit objective is to assess the efficiency of a quality system which is applicable to more than one facility. For example, two or more manufacturing plants owned by the same parent company.

It should be the clearly defined policy of any audit team that there be no surprises involved with the audit at any time. An audit is no place for “cloak and dagger tactics,” “witch hunting,” or the identification of situations which are sprung at a critical time. Ethical audits require full disclosure of any finding (or observation) with responsible members of the audited organization to test its validity prior to formal exposure of the audit report.

Auditors must avoid making false, unsupported or misleading statements that tend to injure or discredit the reputation of the audited organization. This requirement is self-evident and must be adhered to in every respect.

It also requires auditors to observe the principles of independence, objectivity, standards of professional conduct, and absolute honesty in their work. Auditors must exhibit the highest level of professional objectivity in gathering, evaluating and communicating information about the audit activities

Finally, the auditor should engage in a continuing evaluation of the auditing process in a search for ways to improve the effectiveness, efficiency, and value of the process. In summary, all auditors must act in an ethical manner which will bring credit upon themselves, their company and the quality auditing profession.

**References**

# Michael Stanleigh (2009). *Undertaking a Successful Project Audit*

McGraw H. (2013). *The Handbook for Quality Management*

Slade M. (2009). *Managing project and programme interdependencies across the home office*. Presentation to the PPM Standards Group London.

Cormican K. and O'Sullivan, D. (2004). *Auditing best practice for effective product innovation management*, Technovation, Vol. 24, Iss. 10, pp. 819-829.

Danilovic M, Sandkull B. (2005). *The use of dependence structure matrix and domain mapping matrix in managing uncertainty in multiple project situations*. International Journal of Project Management. 23(3):193-203.

Killen CP, Kjaer C. (2012). *Understanding project interdependencies:* The role of visual representation, culture and process. International Journal of Project Management, pp. 554-566.

Information Systems and Control Association. (2005) *IS Standards, Guidelines and Procedures for Auditing and Control Professionals* (2005 ed.). Rolling Meadows, IL: Information Systems and Control Association.