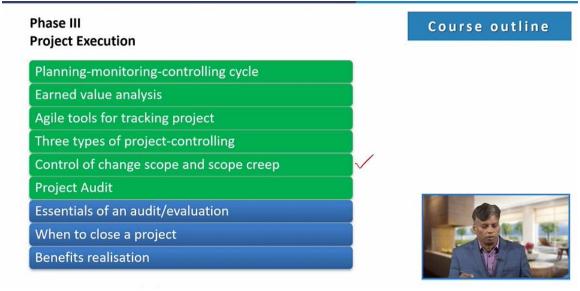**Project Management**

Prof. A. Ramesh

Department of Management Studies

Indian Institute of Technology Roorkee

Week: 7

Lecture 33 - Project Audit

Dear students, in this lecture, I am going to discuss about project audit. In the previous class, I have discussed about control of change scope and scope creep. So, in this lecture, I am going to discuss about project audit. So, the agenda for this lecture is, first I will discuss about what is project audit, then purpose of evaluation and goal of the system. There I will discuss about what are the direct goals and ancillary goals. Then I will discuss about the project audit report format.

Agenda

- Project Audit
- Purposes of Evaluation—Goals of the System
  - Direct Goals
  - Ancillary Goals
- Project Audit Report format
- Financial vs Project Audits
- Depth of the Audit
- Information in the Audit Report

- Responsibilities of the Project Auditor/Evaluator
- Steps for carrying out an Audit
- Project Audit Life Cycle

Then I will compare financial audit versus project audit. Later I will discuss about depth of the audit and information in the audit report. After that I will discuss about responsibilities of the project auditor or the evaluator, then what are the steps for carrying out the audit. Finally, I will discuss about project audit lifecycle.

Introduction

- In the previous lecture, we discussed post-control.

- Post control cannot change the past, but it tries to capture the essence of project successes and failures so that future projects can benefit from past experiences.

- Project evaluation should be conducted at several points during the life cycle, for instance, at major phase gates, and especially if there is a crisis or major problem in the project.

In the previous lecture, we discussed post control. The post control cannot change the past, but it tries to capture the essence of project successes and failures, so that future projects can benefit from the past experience. The project evaluation should be conducted at a several point during the lifecycle, for instance, at major phase gates and especially if there is a crisp or major problem in the project. A handy vehicle for evaluation, a handy vehicle for evaluation is the project audit, that is a formal inquiry into the any aspect of the project. We associate the word audit with a detailed examination of financial matters, but a project audit is highly flexible and may focus on whatever matters senior management   desires.

Project Audit

- A handy vehicle for evaluation is the project audit, a formal inquiry into any aspect of the project.

- We associate the word audit with a detailed examination of financial matters, but a project audit is highly flexible and may focus on whatever matters senior management desires.

Project Audit

- 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.

What is project audit? The project audit is a thorough examination of the management of a project, its methodology and procedures, it records its properties, its budgets and expenditure and its degree of completion. It may deal with the projects as a whole or only with the part of the project. Similarly, determining how your project is performing through periodic project audit provides timely insight into the project that can be leveraged to increase the odds of successful project completion. From a strategic perspective, project audits play an essential role by helping ensuring the project success, which subsequently translate into improved competitive success. So, whenever we do the project audit that indirectly helping to achieve our project competitiveness and the success.

Project Audit

- Proactively determining how a project is performing through periodic project audits provides timely insights into the project that can be leveraged to increase the odds of successful project completion.

- From a strategic perspective, project audits play an essential role by helping ensure project success, which subsequently translates into improved competitive success.

Purposes of Evaluation—Goals of the System

- Success dimension (Shenhar et al., 1997)

Efficiency
Funder impact/satisfaction
Business/direct success
Future potential

Now, we will discuss about the purpose of evaluation, goals of the system. Shenhar has explained four dimensions for success of any project. The first dimension is efficiency, the second one is the funder impact and satisfaction, the third dimension is businesses direct success, then the future potential. Now, we will discuss about the purpose of this evaluation. The purpose of evaluation or audit is here we use audit evaluation interchangeably.

Purposes of Evaluation—Goals of the System

- Identify problems earlier
- Clarify scope, cost, and time relationships
- Improve project performance
- Locate opportunities for future technological advances
- Evaluate the quality of project management
- Reduce costs

One is identify problems earlier, clarify scope, cost and time relationship, improve project performance, locate opportunities for future technological advances, evaluate the quality of project management and reduce cost and improve the process of risk identification and management, speed up the achievement of result, identify mistakes, remedy them and avoid them in the future, provide information to the client, reconfirm the organization's interest in and commitment to the project. Now, we will discuss about some of the direct goals. So, whatever the project objectives that will satisfy the funder satisfaction is called direct goals. So, we have to audit these direct goals. Apart from that, you have to consider some ancillary goals also, improve understanding of the ways in which the projects may be of value of the organization, improve the process that is one ancillary goals.

Purposes of Evaluation—Goals of the System

- Improve the process of risk identification and management
- Speed up the achievement of results
- Identify mistakes, remedy them, and avoid them in the future
- Provide information to the client
- Reconfirm the organization's interest in and commitment to the project

Direct Goals

- The stated project objectives, including funder satisfaction, are the project's "direct goals."

Ancillary goals

Improve understanding of the ways in which projects may be of value to the organization

Improve the processes for organizing and managing projects, better known as the firm's project management "maturity"

Provide information and experience for entering new markets

Second ancillary goal is improve the process for organizing and managing projects better known as the firm's project management maturity, provide information and experience for entering new markets. The other ancillary goals are provide a conducive environment in which project team members can work creatively together, identify organizational strength and weakness in project related personnel, general management and decision making techniques and systems. Then identify and improve the response to risk factors in the firm's use of projects. Allow access to project policy decision making by external stakeholders, improve the way projects contribute to the professional growth of the project team members, identify project personnel who have high potential for managerial leadership. These are the ancillary goals.

Ancillary goals

Provide a conducive environment in which project team members can work creatively together

Identify organizational strengths and weaknesses in project-related personnel, general management, and decision-making techniques and systems

Identify and improve the response to risk factors in the firm's use of projects

Ancillary goals

Allow access to project policy decision-making by external stakeholders

Improve the way projects contribute to the professional growth of project team members

Identify project personnel who have high potential for managerial leadership

Project Audit Report format

The formal report may be presented in various formats but should contain comments on the following points:

1. Status of the project
- Does the work completed match the planned level of completion?

2. Future status
- Are significant schedule/cost/scope changes likely?
- If so, indicate the nature of the changes.

3. Status of crucial tasks
- What progress has been made on tasks that could decide the success or failure of the project?

Now, we will discuss about the project audit format. So, the formal report audit report may be presented in various formats, but should contain comments on the following points. One is the status of the project. Here it should mention does the work completed match the planned level of completion, then it has to discuss about the future status, are significant schedule, cost, scope changes likely, if so indicate the nature of the changes. The fourth mention that we accept from the audit report is risk assessment. What is the potential for the project's failure or monetary loss? The next comment that is expected from the project report is information pertinent to other projects. What lessons learned from the audited project can be applied to the other projects undertaken by the organization, then the limitation of the audit. What assumptions or limitations affect the data in your audit.

Project Audit Report format

4. Risk assessment

– What is the potential for project failure or monetary loss?

5. Information pertinent to other projects

– What lessons learned from the audited project can be applied to other projects undertaken by the organisation?

6. Limitations of the audit

– What assumptions or limitations affect the data in an audit

The primary differences between Financial and Project Audits

• Note that the project audit is not a financial audit.

• The audit processes are similar in that each represents a careful investigation of the subject of the audit, but the outputs of these processes are quite different.

Now we will discuss about the primary differences between financial audit and the project audit. Note that the project audit is not the financial audit. The audit processes are similar in that each represents a careful investigation of the subject of the audit, but the output of

these processes are quite different. The principal distinction between the two is that the financial audit has a limited scope. It concentrates on the use and preservation of the organization's   asset.

The primary differences between Financial and Project Audits

	Financial Audits	Project Audits
Status	Confirms status of business in relation to accepted standard	Must create basis for, and confirm, status on each project
Predictions	Company's state of economic well-being	Future status of project
Measurement	Mostly in financial terms	Financial terms plus schedule, progress, resource usage, status of ancillary goals
Record-keeping system	Format dictated by legal regulations and professional standards	No standard system, uses any system desired by individual organization or dictated by contract
Existence of information system	Minimal records needed to start audit	No records exist, data bank must be designed and used to start audit
Recommendations	Usually few or none, often restricted to management of accounting system	Often required, and may cover any aspect of the project or its management
Qualifications to the audit report	Customary to qualify statements if conditions dictate, but strong managerial pressure not to do so	Qualifications focus on short-comings of audit process (e.g., lack of technical expertise, lack of funds or time)

The project audit is far broader in scope and may deal with the project as a whole or any component or set of components of the project. This table compare the differences between financial and project audit. So with respect to status, financial audit confirms status of business in relation to accepted standard, but the project audits must create basis for and confirm the status of the project with respect to predictions. Financial audit companies state of economic well-being. So it predicts companies state of economic well-being, but the project audit predicts future status of the project with respect to measurement.

In financial audit, mostly we are measuring only the financial terms, but in the project audit, financial terms plus schedule, progress, resource usage, status of ancillary goals. Then with respect to record keeping system, with respect to financial audit, format dictated by the legal regulations and professional standards. For project audits, no standard system uses any system decided by individual organization or dictated by the contract. Then with respect to existence of information system. For financial audit, minimum records needed to start an audit, but for project audit, no record exist, data bank must be designed and used to   start   the   audit.

Then with respect to recommendations. So from the financial audit, usually few or none often restricted to management of accounting system. All the recommendations are related to management of accounting system, but for a project audit often required and may cover any aspect of the project or its management. Then qualification to the audit report. Only to qualify statement if conditions dictate, but strong managerial pressure not to do so, but for the project audit qualifications focus on shortcomings of audit processes like lack of

technical   expertise,   lack   of   funds   or   time.

Depth of the Audit

- There are several practical constraints that may limit the depth of the project auditor's investigation.

- Time and money are two of the most common (and obvious) limits on the depth of investigation and level of detail presented in the audit report.

Now we will discuss about the depth of the audit. There are several practical constraint that may limit the depth of the project auditor's investigation. The two important limitations is time and money. So time and money are two of the most common limit on the depth of the investigation and the level of detail presented in the audit report. Of course, the audit evaluation processes incurs additional cost beyond the standard professional   and   clerical   time   spent.

Depth of the Audit

- First, no matter how skilled the evaluator is, an audit/evaluation process constantly distracts those working on the project.

- Worrying about audit results can lead to excessive self-protective activity, reducing project activity and causing a decrease in overall performance.

Depth of the Audit

- Of course, the audit/evaluation process incurs additional costs beyond the standard professional and clerical time spent.
- **Accumulation, storage, and maintenance of auditable data** are essential cost elements.

Accumulation, storage and maintenance of auditable data are essential cost element. First no matter how skilled the evaluator is an audit or evaluation process constantly distract those working on the project. Worrying about the audit result can lead to an excessive self-protective activity, reducing project activity and causing a decrease in overall performance. Second if the evaluation report is not written with a constructive tone, project morale will suffer. Depending on the severity of the drop in morale, work on the project may receive a severe setback.

Depth of the Audit

- Second, if the evaluation report is not written with a "constructive" tone, project morale will suffer.
- Depending on the severity of the drop in morale, work on the project may receive a severe setback.

Timing of the Audit

- 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 to ensure that critical technical problems have been solved or are under competent attack.

Now we will discuss about the timing of the audit. Given that all projects of significant size are important should be audited, the first audit 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 to ensure that critical technical problems have been solved or under competent attack. Ordinarily, audits done later in the life cycle of your project are of less immediate value to the project, but are of more value to the parent organization.

Timing of the Audit

- 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 organisation.

- As the project develops, technical issues are less likely to be matters of concern.

Timing of the Audit

- Conformity to the schedule and budget becomes the primary interest.

- Management issues are significant matters of interest for audits made late in the project's life (e.g., disposal of equipment or reallocation of project personnel).

As the project develops, technical issues are less likely to the matter of the concern. Quality to the schedule and budget becomes the primary interest of any audit activities. So management issues are significant matters of interest for audits made late in the project's life that is disposal of equipment or reallocation of project personnel. Post project audits are conducted with several basic objectives in mind. The objectives are, first a post project audit is often a legal necessity because the client specified such an audit in the contract.

Timing of the Audit

Post project audits are conducted with several basic objectives in mind.

First, a post project audit is often a legal necessity because the client specified such an audit in the contract.

Second, the post project audit is a major part of the post project report, which is, in turn, the main source of managerial feedback to the parent firm.

Third, the post project audit is needed to account for all project property and expenditures.

Format and Use of the Audit Report

- The type of project being audited and the uses for which the audit is intended dictate some specifics of the audit report format.

- Within any particular organisation, however, it is helpful to establish a general format to which all audit reports must conform.

- The audit report serves as a communication tool for PMs, auditors, and organizational management, ensuring a shared understanding and expectations.

rce: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

Second, the post project audit is a major part of post project report, which is in turn the main source of managerial feedback to the parent firm. Third, the post project audit is needed to account for all projects, property and expenditure. Now we will discuss about the format and use of audit report. The type of project being audited and the uses of which audit is intended dictate some specific of the audit report format. Within any particular organization, however, it is helpful to establish a general format to which all audit reports must confirm.

Timing and Value of Project Audits/Evaluations

Project Stage	Value
Initiation	Significant value if audit takes place early—prior to 25 percent completion of initial planning stage
Feasibility study	Very useful, particularly the technical audit
Preliminary plan/ schedule budget	Very useful, particularly for setting measurement standards to ensure conformance with standards
Baseline schedule	Less useful, plan frozen, flexibility of team limited
Evaluation of data by project team	Marginally useful, team defensive about findings
Implementation	More or less useful, depending on importance of project methodology to successful implementation
Postproject	More or less useful, depending on applicability of findings to future projects

Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

The audit report serve as a communication tool for project managers, auditors and organizational management ensuring a shared understanding and expectations. Now we will discuss about the timing and the value of project audits. In the timing is project initial stage, so significant value if audit take place yearly that is prior to 25 percentage of completion of initial planning stage. Then at the time of feasibility study, it is a very useful

when you do auditing at a time of feasibility study, particularly the technical audit. Then the   preliminary   plan   and   schedule   budget.

   At this time, the audit is very useful, particularly for setting measurement standards to ensure conformance with the standards. Then at the time of baseline schedule, it is less useful because the plan is frozen, flexibility of team is limited. Then evaluation of data by project team, marginally useful, team defensive about the findings and at the time of implementations, if you do the auditing, what are the value? More or less useful at the time of implementation depending on importance of project methodology to successful implementation. Suppose the auditing is done after the project, post project, more or less useful depending on applicability of finding to future projects. Now we will discuss about some   of   the   informations   in   the   audit   report.

Information in the Audit Report

The following items cover the minimum information that should be contained in the audit report

1.   **Introduction**

- This section contains a description of the project to provide a framework of understanding for the reader.

- Project objectives (direct goals) must be delineated.

- The project proposal may be beneficial to include explanatory parts as an addendum to the report if the objectives are complex.

source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

   The following items cover the minimum information that should contained in the audit report. First is the introduction. This section contains a description of project to provide you a framework of understanding for the reader. Project objectives must be delineated. The project proposals may be beneficial to include explanatory parts as an addendum to the   report   if   the   objectives   are   complex.

The second thing is what we are expecting from audit report is current status. This should be reported as of the time of the audit and among other things should include the following measures of performance. It has to say about the cost, schedule, scope and quality. The next thing we expect from the project audit report is future project status. This section contains the auditor's conclusion regarding the progress together with recommendations for any changes in technical approach, schedule or budget that should be made in the remaining task.

The fourth thing we expect from the audit report is critical management issues. All issues that the auditor's feels requires close monitoring by senior management should be included in this section along with a brief explanation of the relationship between these issues and the objectives of the project. A brief discussion of time, cost, scope, trade-off will give the senior management useful input information for decisions about the feature of the project. The next important things we expect from the audit report is risk management. This section

should contain a review of major risk associated with the project and their projected impact on project time, cost, scope.

Information in the Audit Report

4. Critical Management Issues

- 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/scope trade-offs will give senior management useful input information for decisions about the future of the project.

Source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

Information in the Audit Report

5. Risk Management

- This section should contain a review of major risks associated with the project and their projected impact on project time/cost/scope.

- If alternative decisions exist that may significantly alter future risks, they can be noted at this point in the report.

- Once again, we note that the audit report is not the proper place to second-guess those who wrote the project proposal.

Source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

If alternative decision exist that may significantly alter feature risk, they can be noted at this point in this report. Once again, we note that the audit report is not the proper place to second guess those who wrote the project proposal. The next we expect caveats, limitations and assumptions. This section of the report may be placed at the end or may be included as a part of the introduction. The editor is responsible for the accuracy and the timeliness of the report, but a senior manager still retains full responsibility for the interpretation of the report and for any actions based on the timings.

Information in the Audit Report

6. Caveats, Limitations, and Assumptions

- 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

Source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

Now, we will discuss about responsibilities of the project auditor are evaluated. The first and foremost responsibility for an auditor is tell the truth. This statement is not as simplistic as it might appear. It is a recognition that various level of truth are associated with any project. The auditor must approach the audit objectively and ethically and assume responsibility for what is included and excluded from the consideration in the report.

Responsibilities of the Project Auditor/Evaluator

- First and foremost, the auditor should "tell the truth."

- This statement is not as simplistic as it might appear.

- It is a recognition that various levels of truth are associated with any project.

- The auditor must approach the audit objectively and ethically and assume responsibility for what is included and excluded from consideration in the report.

Source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

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 prespecified format

Distribute the report to the PM and project team for their response

Follow up to see if the recommendations have been implemented

urce: Meredith, J.R., Shafer, S.M., & Mantel Jr, S.J. (2017). Project management: a strategic managerial approach. John Wiley & Sons

Now, we will discuss about the steps of carrying out an audit process. If it is a small project, assemble a small team of experienced experts, familiarize the team with the requirement of the project, audit the project on site. After completion, debrief the project's management, produce a written report according to the pre-specified format, distribute the report to the project manager and the project team for their response, follow up to see if the recommendations have been implemented. These are the steps for executing an audit. Now finally, we will discuss about the project audit lifecycle because the project audit is a routine activity.

The Project Audit Life Cycle

Project Audit Initiation

Project Baseline Definition

Project Audit Termination

Project Audit Life Cycle

Establishing an Audit Database

Audit Report Preparation

Preliminary Analysis of the Project

Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

So, the first one is project audit initiation, next stage is project baseline definition, next establishing an audit database, then preliminary analysis of the project, then audit report preparation and the project audit termination. We will discuss about each stages. The first

stage is 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.

The Project Audit Life Cycle

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

The Project Audit Life Cycle

2. Project Baseline Definition

- This cycle phase 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, and developing a program to measure and assemble the requisite information.

Source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

   Second stage is project baseline definition.   This cycle phase normally consists of identifying the performance areas to be evaluated, determining   standards for each area through benchmarking or some other processes, ascertaining management performance expectations and developing a program to measure and assemble the requisite information. The third stage in the project lifecycle is establishing an audit database. Once the baseline standards are established, execution of audit begins. The next step is to create a database for use by the audit team.   The fourth stage is preliminary analysis of the project.

The Project Audit Life Cycle

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.

The Project Audit Life Cycle

4. Preliminary Analysis of the Project

- After standards are set and data collected, judgments are made.

- Some auditors avoid judgment on the grounds that such a delicate but weighty responsibility must be reserved to senior management.

- But judgment often requires a sophisticated understanding of the technical aspects of the project, and/or of statistics and probability, subjects that may elude some managers.

Source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

After standards are set and data collected, judgments are made. Some auditors avoid judgment on the ground that such a delicate but weighty responsibility must be reserved to senior management. But judgment often requires a sophisticated understanding of the technical aspect of the project and of the statistics and probability subjects that may elude some managers. The next stage is audit report preparation. This part of the audit lifecycle includes the preparation of audit report organized by whatever format has been selected for use.

The Project Audit Life Cycle

5. 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.

Source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

A set of recommendations together with a plan for implementing them is also 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. The last stage is 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 audit process.

The Project Audit Life Cycle

6. 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 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.

Source: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2017). Project management: a strategic managerial approach. John Wiley & Sons.

This is done to improve method for conducting the audit. When the review is finished, the audit is truly complete and the audit team should be formally disbanded. Dear student, in this lecture, I have discussed about the purpose of evaluation goals of the system. There I discussed about the direct goals and ancillary goals of the evaluation system.

Later I discussed about the timing of the audit. Then I have explained the format and use

of audit report. Then I have explained timing and the value of the project audits and evaluations. Then I have discussed about the information in the audit report. Then responsibility of the project auditor. After that I discussed about the steps for carrying out the   audit.

And finally, I have discussed about the project audit life cycle. Thank you.