Chapter-9 # Project Termination & Project Evaluation

9.1 Project Termination
If the project is completed or implemented within its time and cost constraints successfully or if
the project is closed before being matured or implementation is said to project termination.
Project termination is also known as the ending of a project. Therefore, the completion or the
closure of project is said to be termination of the project. A project can be terminated upon
successful completion of project activates or unwillingness of entrepreneurs. As projects near
completion, there is a natural tendency to minimize costs by transferring people as soon as
possible and by closing out work orders. Termination is the stage of project Cycle where it
becomes the responsibility of the Project Manager to originate project termination activities
into the project work-plan. These should be seen as vital parts of the project and not just an
additional. It should be ensured that final reports are well written and an effective transfer of raw
materials to other programs takes place on time. For this purpose, many projects may even
require one to two months after work completion simply for administrative reporting and final
cost summarizing. There should be post auditing and formal evaluation of the project in terms
of objectivity of the project.

9.2 Types of Project Termination
The classes of termination of project are shown in the following diagram:

Completion
Completion means perfect accomplishment. If the project is completed or finished within
provided funds and time, then it is said to be project completion. So completion of project
means that works have been completed and have naturally ended its execution.

Termination by extinction:
The project is stopped. It may end because it has been successful and achieved its goals:
The new product has been developed and handed over to the client; the building has been
completed and accepted by the purchaser; or the software has been installed and is
running.
The project may also be stopped because it is unsuccessful or has been superseded: The
new drug failed its efficacy tests; the yield of the chemical reaction was too low; there are
better/faster/cheaper/prettier alternatives available; or it will cost too much and take too
long to get the desired performance. Changes in the external environment can kill projects, too. The explosion of the Challenger stopped a number of space shuttle projects overnight. More recently, extraordinary cost escalation in the technology and materials associated with automotive racing caused the ruling bodies of both Formula 1 and Indy-car racing to stop (and even repeal) technological change in their respective venues.

When a decision is made to terminate a project by extinction the most noticeable event is that all activity on the substance of the project ceases. A great deal of organizational activity, however, remains to be done. Arrangements must be made for the orderly release of project team members and their reassignment to other activities if they are to remain in the parent organization. The property, equipment and materials belonging to the project must be disbursed according to the dictates of the project contract or in accord with the established procedures of the parent organization.

**Termination by Inclusion:**

Most projects are “in-house,” that is, carried out by the project team for use in the parent organization. If a project is a major success, it may be terminated by institutionalizing it as a formal part of the parent organization. NCR Corporation, for example, used this method of transforming a project into a division of the firm and then, if real economic stability seems assured, into an independent subsidiary. Essentially the same process occurs when a university creates an academic department out of what originally were a few courses in an existing department. For example, most software engineering and/or information systems departments began by reorganizing an engineering or business school “sub-specialty” into a full-fledged department.

When project success results in termination by addition, the transition is strikingly different from termination by extinction. In both cases the project ceases to exist, but there the similarity stops. Project personnel, property and equipment are often simply transferred from the dying project to the newly born division. The metamorphosis from project to department, to division, and even to subsidiary is accompanied by budgets and administrative practices that confirm to standard procedure in the parent firm, by demands for contribution profits, by the probable decline of political protection from the project’s corporate “champion,” indeed by a greater exposure to all the usual stresses and strains of regular, routine, day-to-day operations.

**Termination by Integration:**

This method of terminating a project is the most common way of dealing with successful projects, and the most complex. The property, equipment, material, personnel, and functions of the project are distributed among the existing elements of the parent organization. The output of the project becomes a standard part of the operating systems of the parent, or client.

In some cases, the problems of integration are relatively minor. The project team that installed a new machining center, instructed the client in its operation and maintenance, and then departed probably left only minor problems behind it, problems familiar to experienced operations managers. If the installation was an entire flexible manufacturing
system, however, or a minicomputer complete with multiple terminals and many different pieces of software, then the complexities of integration are apt to be much more severe. In general, the problems of integration are inversely related to the level of experience that the parent organization (or client) has had with: (1) the technology being integrated and (2) the successful integration of other projects, regardless of technology.

**Termination by Starvation:**
There is forth type of project termination, although strictly speaking, it is not a “termination” at all. It is “slow starvation by budget decrement.” Almost anyone who has been involved with projects over a sufficient period of time to have covered a business recession has had to cope with budget cuts. Budget cuts, or decrements, are not rare. Because they are common, they are sometimes used to mask a project termination.

**Closure**
Closure means shut down. If the project is shut down or closed before its full implementation or before bring matured for various socio-political and socio-economic reasons, then it is said to be closure of a project. It is also one kind of termination.

9.3 **Fundamental reasons why some projects fail**

1. **A Project Organization Is Not Required**
The use of the project form of organization was inappropriate for this particular task or in this particular environment. The parent organization must understand the conditions that require instituting a project.

2. **Insufficient Support from Senior Management**
Projects invariably develop needs for resources that were not originally allocated. Arguments between functional departments over the command of such resources are very common. Without the direct support of a champion in senior management, the project is almost certain to lose the resource battle.

3. **Naming the Wrong Person as Project Manager**
This book is testimony to the importance of the PM. A common mistake is to appoint as PM an individual with excellent technical skills but weak managerial skills or training.

4. **Poor Planning**
This is very common cause of project failure. In the rush to get the substance of the project under way, competent planning is neglected. In such cases, crisis management becomes a way of life, difficulties and errors are compounded, and the project slowly gets farther behind schedule and over budget. In-deed, careful planning is associated with success in almost all empirical research on project success. Not only is proper planning often cited as a success factor, lack of planning is cited as a cause of failure.

These, and a few other reasons, are the base causes of most project failures. The specific causes of failure, for the most part, derive from these fundamental items. For example,
• No use was made of earlier project Final Reports that contained a number of recommendations for operating projects in the future.
• Time/cost estimates were not prepared by those who had responsibility for doing the work.
• Starting late, the PM jumped into the tasks without adequate planning.
• Project personnel were moved without adjusting the schedule, or were reassigned during slow periods and then were unavailable when needed.
• Project auditors/evaluators were reluctant to conduct careful, detailed meaningful evaluations.
• The project was allowed to continue in existence long after it had ceased to make cost-effective progress.
• Evaluations failed to determine why problems were arising during the early phase of the project life cycle.

5. Other factors:
   • Low probability of success
   • Low profitability
   • Excessive cost escalation
   • Change in competitive factors
   • Unresolved technical problems
   • Higher priority
   • Schedule delay

9.4 Critical Success Factors in order of importance
1. Project Mission- Initial clearly defined goals and general directions.
2. Top Management Support- Willingness of top management to provide the necessary resources and authority/power for project success.
3. Project Schedule/Plan- A detailed specification of the individual action steps for project implementation.
4. Client Consultation- Communication, Consultation and active listening to all impacted parties.
5. Personnel- Recruitment, selection and training of the necessary personnel for the project team.
6. Technical tasks- Availability of the required technology and expertise to accomplish the specific technical action steps.
7. Client Acceptance- The act of “selling” the final project to its ultimate intended users.
8. Monitoring and Feedback- Timely provision of comprehensive control information at each stage in the implementation process.
9. Communication- The provision of an appropriate network and necessary data to all key actors in the project implementation
10. Trouble shooting – Ability to handle unexpected crises and deviations from plan.

9.5 Termination Process
The termination process has two distinct parts. First is the decision whether or not to terminate. Second, if the decision is to terminate the project, the decision must be carried out.
Decision Process
Decision-aiding models for the termination decision fall into two generic categories. First, there are models that base the decision on the degree to which the project qualifies against a set of factors generally held to be associated with successful (or failed) projects. Second, there are models that base the decision on the degree to which the project meets the goals and objectives set for it.

Implementation Process
Once it has been decided to terminate a project, the process by which it will be terminated must be implemented. The actual termination can be planned and orderly, or a simple hatchet job. The former is apt to have significantly better results, and so we suggest that the termination process be planned, budgeted, and scheduled just as is done for any other phase of the project life cycle.

In some organizations, the processing of the project closeout in conducted under the direct supervision of the PM, but this often raises dilemmas. For many PMs, termination signals the end of their reign as project leader. If the PM has another project to lead, the issue may not be serious; but if there is no other project and if the PM faces a return to a staid life in a functional division, there may be a great temptation to stretch out the termination process.

9.6 Primary duties of the termination manager are encompassed in the following general tasks:
1. Ensure completion of the work including tasks performed by subcontractors.
2. Notify the client of project completion and ensure that delivery is accomplished. Acceptance of the project must be acknowledged by the client.
3. Ensure that documentation is complete including a terminal evaluation of the project deliverables and preparation of the project’s Final Report.
4. Clear for final billings and oversee preparation of the final invoices sent to the client.
5. Redistribute personnel, materials, equipment and any other resources to the appropriate places.
6. Clear project with legal counsel or consultant. Files for patents if appropriate, record and archive all “nondisclosure” documents.
7. Determine what records (manuals, reports and other paperwork) to keep. Ensure that such documents are stored in the proper places and that responsibility for document retention is turned over to the parent organization’s archivist.
8. Ascertain any product support requirements (e.g. spares, service) decide how such support will be delivered and assign responsibility.
9. Oversee the closing of the project’s books.

9.7 Final Report- A project History
Good project management systems have a memory. The embodiment if this memory is the project Final Report. The final report is not another evaluation rather it is the history of the project. It is a chronicle of the life and times of the project, a compendium of what went right
and what went wrong, of who served the project in what capacity, of what was done to create the substance of the project, of how it was managed.

The elements that should be covered in the final report are listed below. When considering these elements it is also beneficial to consider where the source materials can be found. For the most part the required information is contained in the project master plan, a document that includes the proposal, all action plans, budgets, schedules, change orders, and updates of the above.

**Project Performance:** A key element of the report is a comparison of what the project achieved (the terminal evaluation) with what the project tried to achieve (the project proposal). This comparison may be quite extensive and should include explanations of all significant deviations of actual from plan. A final earned value discussion can also be helpful. Because the final report is not a formal evaluation, it can reflect the best judgment of the PM on why the triumphs and failure occurred. This comparison should be followed with set of recommendations for future projects dealing with like of similar technical matters.

**Administrative performance:** The substantive side of the project usually gets a great deal of attention, while the administrative side is often ignored until administrative problems occur. There is also a strong tendency on the part of almost everyone to treat the “pencil pushers” with grudging tolerance, at best. The administration of the project cannot solve technical problems, but it can enable good technology to be implemented (or to prevent it). Administrative practices should be reviewed, and those that worked particularly well or poorly should be highlighted. It is important, when possible, to report the reasons why some specific practice was effective or ineffective. If poor administration is to be avoided and good practices adopted,

It is necessary to understand why some things work well and others do not in the environment of a particular organization. This becomes the basic for the recommendations that accompany the discussion.

**Organizational Structure:** Each of the organizational forms used for the projects has its own, unique set of advantages and disadvantages. The final report should include comments on the ways this structure aided or impeded the progress of the project. If it appears that a modification to the accepted from the project organization – or a change to a different basic organizational form – might be helpful for project management, such a recommendation should be made. Obviously, recommendations should be accompanied by detailed explanations and rationales.

**Project and Administrative teams:** On occasion, individuals who are competent and likable as individuals do not perform well as members of a team when a high level of interpersonal communication and cooperation is required. A confidential section of the final report may be directed to a senior personnel officer of the parent organization, recommending that such individuals not be assigned to future projects. Similarly, the PM may recommend that individuals or groups who are particularly effective when operating
as a team be kept together on future projects or when reassigned to the firm’s regular operations.

**Techniques of Project Management:** The outcome of the project is so dependent on the skill with which the forecasting, planning, budgeting, scheduling, resource allocation and control are handled that attention must be given to checking on the way these tasks were accomplished. If the forecast, budgets, schedules were not reasonably accurate, recommendations for improved methods should be made. The techniques used for planning, control, and risk management should also be subject to scrutiny.

### 9.8 Post-Implementation Evaluation

The purpose of **project evaluation** is to assess how well the project team, team members, and project manager performed.

**Team Evaluation**

Evaluation of performance is essential to encourage changes in behavior and to support individual career development and continuous improvement through organizational learning. Evaluation implies measurement against specific criteria. Experience corroborates that before commencement of a project, the stage must be set so expectations, standards, supportive organizational culture, and constraints are in place; if not, the effectiveness of the evaluation process will suffer. In a macro sense, the evidence today suggests that performance evaluation is not done well. See Research Highlight: Measures of Team Performance. The major reasons cited by practitioners are twofold:

1. Evaluations of individuals are still left to supervisors of the team member’s home department.
2. Typical measures of team performance center on time, cost, and specifications.

Most organizations do not go beyond these measures, although they are important and critical. Organizations should consider evaluating the team-building process, effectiveness of group decision and problem-solving processes, group cohesion, trust among team members, and quality of information exchanged. Measurement of customer and user satisfaction with project deliverables (i.e., the project results) is often missed completely. Yet, project success depends significantly on satisfying these two very important groups. The quality of the deliverables is the responsibility of the team. Before an evaluation of the project team can be effective and useful, a minimum core of conditions needs to be in place before the project begins.

**Individual, Team Member, and Project Manager Performance Reviews**

Organizations vary in the extent to which their project managers are actively involved in the appraisal process of team members. In organizations where projects are managed within a functional organization, the team member’s area manager, not the project manager, is responsible for assessing performance. The area manager may solicit the project manager’s opinion of the individual’s performance on a specific project; this will be factored into the individual’s overall performance. In a balanced matrix, the project manager and the area manager jointly evaluate an individual’s performance. In project
matrix and project organizations in which the lion’s share of the individual’s work is project related, the project manager is responsible for appraising individual performance. One process that appears to be gaining wider acceptance is the multirater appraisal or “360-degree feedback,” which involves soliciting feedback concerning team members’ performance from all the people their work affects. This would include not only project and area managers, but also peers, subordinates, and even customers. See Snapshot from Practice: The 360-Degree Feedback. Performance appraisals generally fulfill two important functions. The first is developmental in nature: the focus is on identifying individual strengths and weaknesses and developing action plans for improving performance. The second is evaluative and involves assessing how well the person has performed in order to determine salary or merit adjustments. These two functions are not compatible. Employees, in their eagerness to find out how much pay they will receive, tend to tune out constructive feedback on how they can improve their performance. Likewise, managers tend to be more concerned with justifying their decision than engaging in a meaningful discussion on how the employee can improve his or her performance. It is difficult to be both a coach and a judge. As a result, several experts on performance appraisal systems recommend that organizations separate performance reviews, which focus on individual improvement, and pay reviews, which allocate the distribution of rewards. In some matrix organizations, project managers conduct the performance reviews, while area managers are responsible for pay reviews. In other cases, performance reviews are part of the project closure process, and pay reviews are the primary objective of the annual performance appraisal. Other organizations avoid this dilemma by allocating only group rewards for project work and providing annual awards for individual performance. The remaining discussion is directed at reviews designed to improve performance because pay reviews are often outside the jurisdiction of the project manager.

**Individual Reviews**

Organizations employ a wide range of methods to review individual performance on a project. In general, review methods of individual performance center on the technical and social skills brought to the project and team. Some organizations rely simply on an informal discussion between the project manager and the project member. Other organizations require project managers to submit written evaluations that describe and assess an individual’s performance on a project. Many organizations use rating scales similar to the team evaluation survey in which the project manager rates the individual according to a certain scale (i.e., from 1 to 5) on a number of relevant performance dimensions (i.e., teamwork, customer relations). Some organizations augment these rating schemes with behaviorally anchored descriptions of what constitutes a 1 rating, a 2 rating, and so forth. Each method has its strengths and weaknesses, and, unfortunately, in many organizations the appraisal systems were designed to support mainstream operations and not unique project work. The bottom line is that project managers have to use as best they can the performance review system mandated by their organization. Regardless of the method, the project manager needs to sit down with each team member and discuss his or her performance. Here are some general tips for conducting performance reviews:
• Always begin the process by asking the individual to evaluate his or her contributions to the project. First, this approach may yield valuable information that you were not aware of. Second, the approach may provide an early warning for situations in which there is disparity in assessments. Finally, this method reduces the judgmental nature of the discussion.
• Avoid, when possible, drawing comparisons with other team members; rather, assess the individual in terms of established standards and expectations. Comparisons tend to undermine cohesion and divert attention away from what the individual needs to do to improve performance.
• When you have to be critical, focus the criticism on specific examples of behavior rather than on the individual personally. Describe in specific terms how the behavior affected the project.
• Be consistent and fair in your treatment of all team members. Nothing breeds resentment more than if, through the grapevine, individuals feel they are being held to a different standard than are other project members.
• Treat the review as only one point in an ongoing process. Use it to reach an agreement as to how the individual can improve his or her performance.

Both managers and subordinates may dread a formal performance review. Neither side feels comfortable with the evaluative nature of the discussion and the potential for misunderstanding and hurt feelings. Much of this anxiety can be alleviated if the project manager is doing her job well. Project managers should be constantly giving team members feedback throughout the project so that individual team members can have a pretty good idea how well they have performed and how the manager feels before the formal meeting. Post-project angst can be avoided if pre-project expectations are discussed before the project and regularly reinforced during project performance. While in many cases the same process that is applied to reviewing the performance of team members is applied to evaluating the project manager, many organizations augment this process, given the importance of the position to their organization. This is where conducting the 360-degree review is becoming more popular. In project-driven organizations, the project office typically will be responsible for collecting information on a specific project manager from customers, vendors, team members, peers, and other managers. This approach has tremendous promise for developing more effective project managers. In addition to performance reviews, data are collected for project retrospectives, which can present situations that may influence performance. In these situations performance evaluations should recognize and note the unusual situation.

9.9 Impact Assessment
Impact assessment is directed at establishing, with as much certainty as possible, whether or not an intervention is producing its intended effects. In order to do so, it is necessary to measure as rigorously as possible the outcomes of social interventions and further to estimate net effects by removing contaminations due to the ways the data on project impact were collected and the influences of forces other than the intervention being evaluated.
While one approach is preferred, namely experimental impact evaluations, ‘real world’ practical limitations exist on its use. Usually it is necessary to utilize other evaluation methods. Several alternative approaches try to approximate the experimental model - either through the selection
of comparison groups, the use of target population information prior to their exposure to the intervention or statistical procedures to estimate the net impact of the intervention project. Oftentimes, a combination of these approaches is used in lieu of a ‘true experiment’.

Further, there are a variety of judgmental approaches to assessing project impact. While these are less rigorous, there are ways they can be made more reliable and valid. Constraints of time, funds, evaluation manpower resources and project cooperation may require their utilization as the only feasible evaluation procedures.

The basic aim of impact assessment is to estimate the net effect or net outcome of an intervention. Net effects or net incomes are those results attributable to the intervention, free and clear of the other elements present in the situation under evaluation.

The control groups are used to estimate confounding effects. A theoretical formula based on the ideas may be shown as under:

\[
\text{NET EFFECTS} = \text{GROSS OUTCOME FOR EXPERIMENTAL GROUP} - \text{GROSS OUTCOME FOR CONTROL GROUP} \pm \text{STOCHASTIC ERROR (RANDOM ERROR)}
\]

9.10 Quantification of Outcome Measures:
An outcome measure reflects the intervention goal and which is sensitive enough so that an identifiable change in them will occur if the intervention is efficacious. Scores may be used to mean any measure that relates to the desired outcome of the intervention.

Outcome Measures and Control Group:

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<th>Exposed Group</th>
<th>Control Group</th>
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<tr>
<td>Before</td>
<td>E₁</td>
<td>C₁</td>
</tr>
<tr>
<td>After</td>
<td>E₂</td>
<td>C₂</td>
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1. E₂

Not really an outcome measure, as it does not measure a change in a situation and does not, by itself, allow drawing any conclusion.

2. \( O₁ = E₂ - E₁ \)

Before after comparison, or gross outcome, a measure of outcome widely used in evaluations, but strictly speaking methodologically flawed.

3. \( O₂ = E₂ - C₂ \)

Outcome of exposed group after intervention, procedurally defected.

3. \( O₃ = (E₂ - E₁) - (C₂ - C₁) \)
With without comparison, or net outcome, the preferred measure of outcome.

Or

4. \( O_3 = (E_2 - C_2) - (E_1 - C_1) \)

Alternative formulation of the with-without comparison, mathematically identical to (3).

**Example:**

Considering an adult literacy intervention, literacy could be defined as a reading score equivalent to that attained on the average by completing six schools grades. If the group exposed to the intervention had only 30 percent of the group at this grade level prior to the intervention and 50 percent after the intervention, and the equivalent group had 35 percent and 40 percent respectively who were literate when measured at the same two time points, the formulae would yield:

1. \( O_1 = E_2 - E_1 = 50\% - 30\% = 20\% \)
2. \( O_2 = E_2 - C_2 = 50\% - 40\% = 10\% \)
3. \( O_3 = (E_2 - E_1) - (C_2 - C_1) = (50\% - 30\%) - (40\% - 35\%) = 15\% \)

**Constraints on Assessing Social Outcomes:**

1. Endogenous Change
2. Secular Drift
3. Interfering Events
4. Maturational Trends
5. Self-Selection
6. Stochastic Effects
7. Unreliability

A way of putting together the items may be in the form of a ‘formula’ as follows:

\[
\text{Net Effects} = \text{Gross Outcome} \ - \ \text{Endogenous Change}
\text{Secular Drift}
\text{Interfering Events}
\text{Maturational Trends}
\text{Self-Selection}
\text{Stochastic Effects}
\text{Unreliability Effects}
\]