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Q**.1. Discuss the methods available in budgeting for the project**

The project manager is responsible to estimate the budget required to complete project activities. The Project Manager should allocate all costs to project activities, and all aspects of the project, including the cost of internal and external human resources, equipment, travel, materials and supplies, should be incorporated. The budget should be much more detailed and more accurate than it was on the project proposal. In the case the project manager starts her job with a contracted budget, the project manager needs to review the assumptions made during the project proposal stage and verify that the agreed on the scope can be accomplished in the contract budget.

There are four basic methods to estimate a budget: analogous, top down, bottom-up and parametric estimating.

**• Analogous**, this estimate technique uses the actual costs of a previous, similar project for the basis for estimating the costs of the current project. This method is generally less costly than others, takes less time but is less accurate. Analogous estimates are most reliable when a previous project is similar in the objectives and activities to the current one. Additionally, the people preparing the estimates must have the required expertise to determine if certain activities will be more or less expensive on the new project.

individual activity, in this scenario the project determines the number of activities or outputs the project **Top-down estimate,** it is a budget estimate when the total project budget is known, and the project needs to know the costs of each can produce with a given budget. A fixed budget is the broken down using the WBS to determine the number or quantity of activities that can be achieved with the budget. The project may decide to reduce or increase certain activities or reduce the number of WBS levels to fit the budget limitations. Top down uses actual budgets from activities in similar past projects.

**• Bottom Up** **estimate** requires estimating the individual activities and the cost of each input and is adding them up to get the project total. A detailed WBS is needed to determine all the activities in the project and determine all required resources such as personnel, equipment and materials. Staff responsible for an activity or with expertise in a specific area develops the estimates of the lowest level of the WBS and all estimates are added to create estimates for each higher level of the WBS and finally for the entire project. In this technique the estimate starts with a fixed number of activities and the estimate calculates the total budget.

• **Parametric estimates** use standardized parameters that define the costs of an activity or task for a specific rate or output. For example, the costs of training one person are a rate that can include people, material and equipment costs that once it is multiplied for the required number of people that need to be trained, gives the total budget for the activity. For this example, the parameter may include the type of location, length of the training. Parametric model is quite popular in construction projects, costs can be estimated based on square meters of construction to arrive at the total cost for a building. The accuracy of this method depends on the data available and whether or not the model can be scalable to different conditions.

**Q.2.What are the roles of the multi-disciplinary teams in planning and budgeting for a project?**

Multidisciplinary teams contain two or more professions to provide integrated and coordinate services. If your business needs to develop complex products, building a cohesive team may enable you to generate them faster. A person working independently has certain strengths and weakness, and likely will not have all the answers. Teamwork fosters camaraderie and sharing. On an effective team, the members contribute their best work, support others, and enable high-quality, timely, and cost-effective project completion.

**Clear Goals**

When you manage a multidisciplinary team, fostering teamwork enables you to achieve your goals. To ensure commitment from your team members, you need to establish a clear purpose. Project objectives must be meaningful to each group member. It’s important to allow the team to discuss and set specific and measurable goals. This doesn’t have to be a formal process, but everyone needs to participate. Each team member, regardless of his background, must be free to express his opinions. Disagreement is permitted as long as it doesn’t derail the group.

**Decision Making**

Innovative solutions typically require multi-disciplinary teams to define, design and develop comprehensive solutions, although varied backgrounds may cause culture clashes that have to be resolved. Effective teamwork enables the group to make decisions, solve problems and communicate successfully. Involving each team member in the decision-making process typically results in better decisions. This results in job satisfaction, commitment and increased productivity.

**Role and Responsibilities**

Large multidisciplinary teams usually contain many team members with varying skills. Poorly defined roles and responsibilities may result in chaos, conflict and confusion. Effective project managers avert this disaster by generating a responsibility matrix. This spreadsheet lists the tasks in the left columns and the team members' names in cells across the first row. For each task and for each person, you indicate if the person is responsible, accountable, consulted or informed. It's important to establish this level of detail to set expectations for how the team will operate.

**Productivity**

Improved productivity results when multidisciplinary teams function efficiently. It’s important that team members commit themselves to listen carefully, respect the opinions of others, and value other team members' skills and strengths. Multidisciplinary teams usually generate a wide range of ideas. To manage productivity, the project manager needs to establish clear procedures for assimilating new team members, and for transferring knowledge from one profession to another. The manager should always make an effort to create a collaborative atmosphere. Team members need to remember to withhold initial criticism, welcome unusual ideas, and consider how to combine and improve ideas. Removing personal bias and entertaining new ideas can solve problems.

**Q.3.Why is risk tracking important?**

Risk Tracking (sometimes referred to as Risk Monitoring) is an activity of systematically tracking and evaluating the performance of risk mitigation actions against established metrics throughout the acquisition process and develops further risk mitigation options or executes risk mitigation plans, as appropriate. Its intent is to ensure successful [Risk Mitigation](http://acqnotes.com/acqNote/risk-mitigation) and should be done as part of [technical reviews](http://acqnotes.com/acqNote/major-reviews-overview), risk review board meetings, or periodic program reviews. It feeds information back into the other risk management activities of [identification](http://acqnotes.com/acqNote/risk-identification), [analysis](http://acqnotes.com/acqNote/risk-analysis), [mitigation planning](http://acqnotes.com/acqNote/risk-mitigation-plan), and [mitigation plan implementation](http://acqnotes.com/acqNote/risk-mitigation-plan-implementation).

Risk tracking activities include:

* Communicating risks to all affected [Stakeholders](http://acqnotes.com/acqNote/stakeholdersprogram-manager),
* Monitoring risk mitigation plans,
* Reviewing regular status updates,
* Displaying risk management dynamics
* Tracking risk status within the [Risk Reporting Matrix](http://acqnotes.com/acqNote/risk-reporting-matrix), and
* Alerting management as to when [Risk Mitigation Plans (RMP)](http://acqnotes.com/acqNote/risk-mitigation-plan) should be implemented or adjusted

The key to the tracking activity is to establish a management indicator system over the entire program. The [Program Manager (PM)](http://acqnotes.com/acqNote/program-manager) uses this indicator system to evaluate the status of the program throughout its life-cycle. It should be designed to provide early warning when the [likelihood of occurrence](http://acqnotes.com/acqNote/risk-confidence-probability) or the severity of consequence exceeds pre-established thresholds/limits or is trending toward exceeding pre-set thresholds/limits so timely management actions to mitigate these problems can be taken.

The [Program Management Office (PMO)](http://acqnotes.com/acqNote/program-management-office-pmoprogram-management) should re-examine risk assessments and [Risk Mitigation](http://acqnotes.com/acqNote/risk-mitigation) approaches concurrently. As the system design matures, more information becomes available to assess the degree of risk inherent in the effort. The program office should also look for new risk mitigation options. Alternative technologies may mature, new products may become available in the market place, or may be information found in unexpected places.

Risk tracking results should be documented and reported and present standard likelihood and consequence screening criteria, as well as the [Risk Reporting Matrix](http://acqnotes.com/acqNote/risk-reporting-matrix). Documentation includes all plans and reports for the PM and decision authorities and reporting forms that may be internal to the program office. The purpose is to ensure management receives all necessary information to make timely and effective decisions. This allows for coordination of actions by the risk team, allocation of resources, and a consistent, disciplined approach

**Q.4.Discuss the risk mitigation plan**

Risk mitigation planning is the process of developing options and actions to enhance opportunities and reduce threats to project objectives.

Risk mitigation seeks to reduce the impact of a potential risk and the loss associated with that risk. Mitigating risk doesn't reduce the risk at all. In fact, it accepts that the business will not be able to stop some type of loss. Therefore, the risk mitigation plan seeks to limit the financial impact on the company if something goes wrong.

Risk mitigation is sometimes called risk limitation, meaning that it limits the impact to the business' bottom line. A restaurant maintains sanitary food practices to reduce the chances of food poisoning by patrons. Law firms establish complex IT protocols, that have security measures to protect private client data from becoming breached. Medical offices might have two waiting rooms, one for regular checkups and one for sick patients, to reduce the likelihood that healthy patients might become ill from being in close contact with contagious patients.

These are all regular examples of risk mitigation for businesses. If a business knows what the most likely problems are, it can take measures to reduce the overall impact on the business, its employees and its customers.

**Contingency Plan vs. Mitigation Plan**

A contingency plan and a mitigation plan are often used interchangeably but they are, in fact, different types of risk planning strategies. A contingency plan is what you do after something happens; it's like a plan B. The mitigation plan is what you do simultaneously to normal business practices and are often integrated into daily routines such as the medical office using flu masks during flu season to prevent the additional spread of illness to doctors, nurses, staff and healthy patients.

A contingency plan is what you do when your standard modes of practice have not prevented a loss. Contingency plans are an idea until they are required to be put in place. A disaster recovery plan is one type of contingency plan. Most businesses are not operating with the assumption that a tornado, hurricane, flood or other disasters will create a problem. Assume a flood closes a city down but an insurance company in the middle of the city needs to help concerned customers experiencing a loss. The insurance company might be experiencing a loss and interruption in business as well but must have a contingency plan to establish operations to help clients at their time of need.

Contingency plans begin as a risk loss is happening or the signs suggest that it will start to happen shortly. You can't predict a fire or an earthquake, but you can predict a snow storm or hurricane's effect on your business. Contingency plans are implemented as soon as an event happens or as it becomes imminent.

While contingency plans are widely established along with insurance transference of risk regarding disasters, they go far beyond the natural disaster scope for businesses. Assume a business is preparing for the Thanksgiving weekend holiday sales but the shipment doesn't arrive with the inventory. The business might need to implement a contingency plan. The better prepared ahead of time for these types of issues, the easier the business can implement it.

In a situation such as this, the business only has one shot every year at Black Friday. They could still hold their sale and offer free home delivery for all purchases made on Black Friday. While business might incur some additional costs based on the contingency plan, this is a better scenario that shutting the business' doors on the biggest shopping day of the year.

**Proper Risk Assessment**

When thinking about what risk management strategies you need to address, consider your industry, the geographic locations of offices and stores as well as the typical issues seen in fulfillment. Areas often considered by business leaders first are disaster plans, security protocols, product issues and fulfillment considerations. Risk mitigation could address the entire enterprise, or it could address a specific department or project.

A business should appoint a risk manager. The owner often wears this hat in a small business, but this might be a specialized employee for larger companies. Once the appropriate person is tasked with risk management, he must identify and clearly define the risks. Once the risks are defined, he must analyze and prioritize the risks. Then a plan is developed.

The risk manager is implementing more than just mitigation strategies. He might incorporate a combination of aversion, mitigation and transference depending on the risk. There are some risks that might be deemed acceptable and just part of doing business. Once the risk strategy is implemented, it is important to monitor progress and make adjustments as deemed necessary.

If an accounting firm knows it gets 10 times the amount of business during peak tax season, the mitigation plan to properly service consumers might be to hire five temporary staff members to deal with customer intake, basic data entry and administrative work. Monitoring the plan might show that five temporary employees were either too many or too few. Adjustments to the staffing would improve bottom line revenues while maintaining high levels of customer satisfaction and employee accuracy.

**Resiliency as a Goal**

The goal of risk management strategy is to make a business resilient to the many potential problems a business face. Business leaders who focus merely on growth and fulfillment become vulnerable to any number of risks.

For example, a business that doesn't have the right type of insurance policy to cover loss of revenue after a major loss might not be able to sustain itself in the recovery phase after a warehouse fire. While the inventory, building and people might be insured, it takes time for the claim to be processed and the business to restock inventory. Being in a situation where you cannot fulfill even the basic of business expenses because of loss or other problems is poor planning and the sign of a non-resilient business.

Business leaders and risk strategies need to coordinate with key resources to properly plan. This involves talking to internal managers to see what critical issues regular problems are. It also requires consulting with attorneys, insurance agents, IT professionals and accountants to ensure a clear understanding of issues is present. Attorneys will help with compliance issues while insurance agents help develop proper transference protections. Each professional will be able to help a business risk manager better understand the potential issues the company faces.

Once risks are prioritized and a plan is implemented, the business has taken steps to become more resilient in the face of adversity. Of course, there is no strategy that will protect against all risk which is why prioritizing the risk is so important. Cover key critical issues and budget the most funds for those strategies.

**Creating a Culture of Mitigation**

Every company should establish practices to encourage a culture of mitigation strategies. The mitigation plan cannot be left to one person for the company to develop market resiliency. Business leaders must take the time to educate and train employees on the risk involved, the strategies being implemented and the protocol every employee should embrace and why.

A bank in a high-robbery zone might install double doors where employees and customers must enter one at a time and wait in a secure throughway, until one door is locked, and the employee or customer gets a green light to enter. Employees must lead by example, entering as individuals and not in multiples, to ensure that customers do the same.

The medical office that's concerned with the possibility that its elderly patients might become ill while seeing a practitioner in the office, must train its staff to adopt the habit of washing their hands and using hand sanitizer. It is not sufficient if the only people using hand sanitizers are the doctors and nurses examining patients. Everyone needs to engage in this mitigation practice for it to succeed.

A dog-boarding facility that's trying to prevent the spread of kennel cough must have employees who care enough about the animals' well-being to double check all records of incoming animals, even if they are regular visitors to the facility.

These are all examples of risk mitigation strategies that require a company culture to buy-in to the plan, so that the company may succeed. This may become part of the hiring practices, but it certainly requires managers to hold meetings and training to review the potential problems and mitigating measures. All risk-management efforts and plans reduce the impact of adverse events and unforeseen circumstances on the bottom-line revenue of the company.

**Q.5. Discuss in detail the importance of risk management boards**

Historically, corporate Boards of Directors have held the responsibility of risk management oversight, ensuring that risk management processes are clearly defined and appropriately enacted. Their role in managing risk has been to provide guidance and leadership on matters that impact the strategic direction of a company or its public image. In this traditional view, C-level management is left with the responsibility of actual risk assessment and mitigation, including issue resolution. But in today`s fast-paced and social-media driven world, the speed at which a risk can turn into a widely publicized issue means Board members must now provide both tactical and strategic supervision over risk management as part of their membership.

In the wake of the recent financial crises, increased awareness and interest from a broader array of company stakeholders now exists. High-profile and highly reported product quality problems continue to impact multiple industries and both regulators and Boards have been forced to re-evaluate the structure and the role of their risk governance efforts.

Whether required by law or not, many corporate Boards. Especially (but not solely) those in the financial industry, have taken a more active role in managing corporate risks. Regardless of regulation or stakeholders demands, an active risk management initiative at the Board level makes good business senses because each risk, whether strategic, operational, political, reputational or other, presents companies with an opportunity to build competitive advantage. The proliferation of risks in the current environment has intensified and forced companies to focus on impacts that must be avoided and opportunities that should be seized. From our point of view, the Board should play a direct role in the new risk environment paradigm by creating an active Board-Level risk management program. Such as approach will allow organizations to transition from a position defending against risk to a more proactive approach that leverages risks as new opportunities and perhaps even advances organizations to more ``blue ocean`` possibilities.

An active risk management program starts with the establishment of a Board-level risk committee. This committee transitions Boards from distributed, silcobased accountability to a closer, more unified and holistic accountability model. The committee should be responsible for clearly delineating the Board`s role in the oversight of management level risk programs, separating them from Board-level risk management. It requires the establishment of the company`s risk profile, defining the overall approach and putting the appropriate controls in place to ensure all parties fulfill their risk-related responsibilities. The committees would aim to raise the level of awareness by identifying potentials risks and educating the Board on risk governance and best practices and procedures. Lastly, the Board-Level risk committee should ensure the various oversight committees, including compliance, audit and strategic planning and share a common view of the desired risk profile and key risks facing the enterprise. Such an approach allows for a stronger and more collaborative environment.

But the remember, active risk management at the Board level does not mean resoling issues. Issues are what happen when risk management is not working. And large-scale, newsworthy issues are what occur when the risk oversight process is not functioning correctly.

Active risk management also does not mean eliminating all risk to the enterprise. That would be costly, if not outright impossible. Risk must exist if a company wishes to be innovative and competitive in the marketplace. In a steady-state environment, however, active risk management can be approached in the logical order:

* **Clarify risk tolerance and profile**-Organizations must figure out their own risk and tolerance; this means identifying what matters most to the growth of the company, what the acceptable trade-offs are between risk and reward and what environmental circumstances are worth monitoring and managing. Clarifying an organization`s risk tolerance and establishing a risk profile is as important as having a branding strategy. This discussion should take more than casual conversation to finalize and once determined, but rather become a major agenda item at each Board meeting going forward.
* **Scan the internal and external environment for new threats and opportunities-** Intentional and regular environment scans will minimize costly reactions and ``firefighting``. If Board members find themselves spending hours responding to an unplanned and unexpected event, then clearly strategic revenue-generating topics are being neglected. The best approach requires continuous review of internal and external factors that may impact a company in areas including people, process, technology, environment, competitors, industry trends, regulatory and economics.
* **Monitor previously identified risks and opportunities-** Board members should be cautiously aware of the past, as history informs the future. And a wise Board member will use the failures of others as a guidepost for issues and concerns they wish to avoid. It is important for the Board members to continuously monitor not only the most obvious risks and issues in their own backyard, but also those in the competitive surroundings so they can discuss the possibility of responding to such risks.
* **Decide when to act-** It`s a fine balance between knowing when to act and when to let nature take its course. Managing risk in public eye provides an opportunity for companies to show off the content of their character. Planning will make all the difference in the world as the best planning includes preset criteria upon which to make decision cues and triggers. When decisions to act are made, it is always wise to communicate those decisions clearly, concisely and with the end in mind.

Take action. When it comes to putting a risk mitigation plan in place, the sooner the better. The mitigation plan should balance the cost of actions against the cost of the potential problem- both financially and to the company`s reputation. Action should be coordinated tightly with communications to internal and external stakeholders, leaving nothing to the imagination. And communications should be open and honest, within the bounds of confidentiality. Keeping an organization profitable and on the cutting edge of innovation requires taking risks. The Board is not responsible for ensuring that the risks are appropriate.

Active risk management is forward-looking and visionary. It takes knowledge of the past and connections to disparate experiences and ideas and projects into the future to create novel scenarios and solutions. Tasking your Board of Directors with such roles and responsibilities is a crucial way to ensure the long-term prosperity of your company.

**Q.6.Explain the roles and responsibilities as well as selection of a project manager**

Good project managers are people with an excellent entrepreneurial mindset. This allows them to think about a project beyond the basic skill set needed to manage it., it is the project manager’s job to direct teams and team members to the finish line. At the end of the day, the project’s success or failure rests solely on the project manager’s shoulders, and he or she is the one responsible for the end result.

Project managers keep knowledge and information flowing seamlessly. They need both technical know-how and first-hand knowledge of the tasks they assign to others to keep the project moving forward.

But technical know-how does more than enable project managers to communicate ideas effectively to all those involved. Good project managers use their technical understanding to win team members’ respect. Since project managers influence more decisions than anyone else in the company, their primary task is to use what they know to not just win employees’ respect but keep it throughout the project and into the future. So, the roles and responsibilities of a project Manager are briefly explained as belows:

**Activity and resource planning**

Planning is instrumental for meeting project deadlines, and many projects fail due to poor planning. First and foremost, good project managers define the project’s scope and determine available resources. Good project managers know how to realistically set time estimates and evaluate the team or teams’ capabilities.

They then create a clear and concise plan to both execute the project and monitor its progress. Projects are naturally unpredictable, so good project managers know how to make adjustments along the way as needed before the project reaches its final stages.

**Organizing and motivating a project team**

Good project managers don’t get their teams bogged down with elaborate spreadsheets, long checklists, and whiteboards. Instead, they put their teams front and center. They develop clear, straightforward plans that stimulate their teams to reach their full potential. They cut down on bureaucracy and steer their teams down a clear path to the final goal.

**Controlling time management**

Clients usually judge a project’s success or failure on whether it has been delivered on time. Therefore, meeting deadlines is non-negotiable. Good project managers know how to set realistic deadlines, and how to communicate them consistently to their teams.

They know how to effectively do the following:

* Define activity
* Sequence activity
* Estimate the duration of activity
* Develop a schedule
* Maintain a schedule

**Cost estimating and developing the budget**

Good project managers know how to keep a project within its set budget. Even if a project meets a client’s expectations and is delivered on time, it will still be a failure if it goes wildly over-budget. Good project managers frequently review the budget and plan ahead to avoid massive budget overruns.

**Ensuring customer satisfaction**

In the end, a project is only a success if the customer is happy. One of the key responsibilities of every project manager is to minimize uncertainty, avoid any unwanted surprises and involve their clients in the project as much as is reasonably possible. Good project managers know how to maintain effective communication and keep the company’s clients up-to-date.

**Analyzing and managing project risk**

The bigger the project is, the more likely there are to be hurdles and pitfalls that weren’t part of the initial plan. Hiccups are inevitable, but good project managers know how meticulously and almost intuitively, identify and evaluate potential risks before the project begins. They know how to then avoid risks or at least minimize their impact.

**Monitoring progress**

During the initial stages, project managers and their teams have a clear vision and high hopes of producing the desired result. However, the path to the finish line is never without some bumps along the way. When things don’t go according to a plan, a project manager needs to monitor and analyze both expenditures and team performance and to always efficiently take corrective measures.

**Managing reports and necessary documentation**

Finally, experienced project managers know how essential final reports and proper documentation are. Good project managers can present comprehensive reports documenting that all project requirements were fulfilled, as well as the projects’ history, including what was done, who was involved, and what could be done better in the future.

**Q.7.laborate on the methods of project budgeting**

Project budgeting is a capital management function of business. Managers create budgets to ensure that projects have a financial road map through the development of the project. Budgets can take several weeks to complete depending on the size of the project. Companies must also decide on which budget technique or tool works best for calculating the financial needs of the project. Common budget techniques include the analogous technique, top-down method, bottom-down method and parametric estimating. Each budget tool has different advantages for the project management process.

**Analogous Budget Tool**

The analogous budget tool uses the actual costs from a previous project to estimate the budget for a current project. This method can be used for multiple projects, as long as they are similar in nature. Companies with repeated projects that have same goals and objectives can actually use the analogous budget tool with decent success. Analogous budgeting is also less costly than other budgeting tools or methods. Unfortunately, companies with diverse projects may find the analogous method less accurate and unreliable for estimating costs.

**Top-Down Method**

The top-down method looks at the total project budget and estimates costs for each process in the project. This method looks at each activity needed to complete the project or the number of outputs from the project when estimating costs. Companies may use a fixed dollar amount for the project budget and assign a portion of this amount to each process in the budget. Managers may decide to cut activities if the budget is unable to cover the cost of all project activities.

**Bottom-Up Method**

The bottom-up budget tool uses the costs of all economic resources or inputs used in a project to determine the total project budget. This method is a variable budgeting method since the cost of inputs can vary depending on the availability or quality of the inputs. Companies may also use operational manager or employee advice when planning project budgets under this. These individuals typically have a good understanding of the inputs and production methods used for completing various projects.

**Parametric Estimate**

Parametric-estimate budgets used standardized mathematical calculations or parameters for determining the cost of a project budget. This budget tool may be based on cost-consuming information such as process costing tools or cost allocation methods that attribute business costs to goods and services. This information is used in parametric budgeting by taking the specific cost information and multiplying it by number of processes or activities used to complete projects. This cost-accounting information may also be customized or re-calculated for the specific project budget at hand.

**Q.8.List down the reasons for project termination. Explain each of them with an appropriate example.**

Projects are a means by which organizational strategy is implemented, and may often have social, economic, and environmental impacts that far outlast the projects themselves (Project Management Institute 2000, 4–5). Yet projects by definition are time bound and must terminate. Indeed, the substantive objective of a project is to “attain the objective “and close the project (Project Management Institute 2000, 5). It is certainly important to finish well. Nobody remembers an effective startup, but everyone remembers an ineffective project termination; the consequences are long lasting (Turner 1999, 329).

Certain projects are required to finish before target termination to remain competitive and to get faster returns on the investment (Dey 2000). On the other hand, many projects are aborted midstream, for both volitional and involuntary reasons. As for volitional motives, the business need for the project may no longer exist, and continuing the project will only produce a “white elephant” with little congruence or fit with organizational strategy. Legal problems and environmental concerns may arise, necessitating the dissolution of the project to avoid severe penalties that may exceed any benefit from the project. On the obverse, involuntary failure of the project may occur due to insufficient financial support, poor leadership, weak front-end planning, and excessive negative impacts of project stakeholders.

It is also possible to terminate a project that has not attained all its objectives. Such projects have inflexible deadlines, such as widely advertised conference dates. Whether the preparations and fine details of such a project is complete or not, the project itself has to terminate on the due date. This seems to be common where the deliverable is a service. Yet, not all projects are terminated in the conventional sense. There are four fundamentally different ways to terminate a project (Meredith and Mantel 2000, 540–545):

**Termination by extinction**. The project may be stopped because it has been either successful, or unsuccessful. Examples of successful projects include the launch of a software program; the inauguration of an automobile production line; and, the completion of a new school building. Unsuccessful projects may include a drug manufacture that has failed efficacy tests; a project that is no longer cost-effective; and, a disposal site that has failed to meet environmental standards.

**Termination by addition.** This is where a project is made more or less an external, but full-fledged addition to the parent organization. For example, a new department of a university would be built as an extension of existing university facilities, to operate with substantial independence from other segments of the institution.

**Termination by integration.** This is the most common way of dealing with successful projects, and the most complex. The output of the project becomes part-and-parcel of the operating systems of the parent or client, becoming embedded in day-to-day operations. This requires thorough integration with primary operations at various levels, distributing the output among existing functions.

**Termination by starvation.** As the term suggests, the financial, human, and material resources needed to execute the project are curtailed or withheld. The project is effectively dead, and merely on minimal life-support system for legal reasons. Termination by murder, or “projectivized” is an interesting variation, where the incomplete project is terminated without warning.

A fifth category of project termination could be added to this: *Termination by suspension*. In some cases, a project may be suspended or shelved for a period and resumed at some future point. A pharmaceutical product that needs input from the product of a forthcoming project is an example where it is pointless to continue the project until the key ingredient is available.

The following statistics compiled by the Standish Group should compel our attention (North 2001):

• 31 percent of projects are cancelled before completion.

• 53 percent of projects overrun costs by 188 percent and schedule by 222 percent.

• Only 16 percent are delivered on time, within budget, and with correct functionality.

Considering these staggering statistics, it is clear that the losses to firms implementing projects would run into trillions of dollars in monetary terms alone, apart from loss of markets, opportunity costs, and organizational failures. Therefore, there is an imperative need to analyze the factors causing termination delays with a view to address the problem. The salutary effects of minimizing the chances of delayed termination can hardly be exaggerated.

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