

## **Project Management**

Project management is the discipline of planning, organizing, and managing resources to bring about the successful completion of specific project goals and objectives.

A project is a temporary endeavor, having a defined beginning and end (usually constrained by date, but can be by funding or deliverables), undertaken to meet particular goals and objectives, usually to bring about beneficial change or added value. The temporary nature of projects stands in contrast to business as usual (or operations), which are repetitive, permanent or semi-permanent functional work to produce products or services. In practice, the management of these two systems is often found to be quite different, and as such requires the development of distinct technical skills and the adoption of separate management.

The primary challenge of project management is to achieve all of the project goals and objectives while honoring the preconceived project constraints. Typical constraints are scope, time, and budget. A single project manager must be identified to manage all elements of the project in order to achieve the business objectives within the desired schedule and budget. Without a dedicated project manager (PM), any project will fail.

Includes management of:

1. Scope – what are the business goals the project is trying to achieve, and exactly what activities and tasks are included in the project?
2. Schedule - when will the work be done, and who will be doing the work?
3. Budget - how much will the work cost?
4. Communication – how will the project team act as a cohesive unit working towards a common goal and how will everyone on the team stay informed of critical information?
5. Risk – what are the ways in which the work could deviate from the plan and how will the team prevent these issues or correct them if they arise?

Successful project management is an art and a science that takes practice.

## **Scope Management**

The Project Management Institute Project Management Body of Knowledge (PMBOK) defines product scope as the features and functions that are to be included in a product or service. It defines project scope as the work that must be done to deliver a product with the specified features and functions. Project scope management is defined as the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.

More than seventy percent of projects fail. When projects fail, it's rarely technical. Over eighty percent of those projects fail due to project management. Projects, like business, often fail because they are not properly managed. Scope creep is a major aspect of project failure. This can be mitigated by following simple procedures such as having a scope document that all the stakeholders agree on and on having a change management plan if there are supposed to be modifications to it.

### **Problems with Project Scope**

The problems that may arise with the Project Scope are:

- **Ambiguous:** Ambiguity in scope leads to confusion and unnecessary work. To avoid this, the scope needs to be clear and to the point.
- **Incomplete:** Incomplete scope leads to schedule slips and hence finally cost overrun. To avoid this, the scope needs to be complete and accurate.
- **Changing:** Changes to scope leads to what is known as scope creep which is the primary cause of late deliveries and potentially "never ending" projects. To avoid this, the scope document needs to be locked down and remain unaltered for the duration of the project. Changes to the scope need to be made through a formal change process.
- **Uncollaborative:** A scope that created without stakeholder input leads to misinterpretations in requirements and design. To avoid this, the scope document should be shared with all stakeholders.

### **Capturing Project Scope**

The defense against all these problems is to clearly define the project's scope at the beginning. Once defined then validate that scope with all the key stakeholders, getting their buy in and consensus on the scope before charging ahead.

Some tools and techniques useful in capturing the project scope are:

1. Define the project need – what is the business problem that you are trying to solve? Reach more rural clients with handheld devices? Connect your branches? Integrate your accounting and MIS systems?

2. Identify key stakeholders – These will be individuals from the MFI such as the executive leadership team, head of IT, Field Operations, HR, Finance, Internal Audit, and Non-Financial services, and could also include donors, investors and regulators.
3. Translate business needs into requirements – Create plain-language descriptions of the critical business problems that the IT solution is meant to correct. A scope document should eventually contain a reference to detailed functional and technical requirements (see “Gathering Requirements” on the Resource Center), but defining high level statements of project requirements is critical to establishing a common understanding of the problem. These statements should describe a summary of how the IT solution will be created, tested, installed, and maintained and should include all the product and project work that will be done as part of the project.
4. Identify external interfaces - One last component included in the scope of a project is all the external interfaces. Will the IT solution interact with another IT system? For example, will your MIS be expected to interface with your accounting solution? Or will your HRIS need to interface with your reporting platform? These system-to-system connections should be clearly documented.

## Schedule Management

In order to keep a project on track to deliver all the functionality in the time expected by stakeholders, creating and managing a detailed project schedule is of critical importance. All projects should be broken down and managed in a detailed project schedule.

To prepare the project schedule, the project manager should work with each expert on the team to figure out what the tasks are, how long they will take, what resources they require, and in what order they should be done. Each of these elements has a direct bearing on the schedule.

To create a project schedule, the project manager should follow these steps:

- List all the tasks that need to be completed. These tasks should be small enough that they can be completed in less than a week. For example, “Train All Staff” is not detailed enough for successful management, but “Conduct Training workshops for Head Office Finance Staff” and “Conduct Training workshops for Internal Audit Staff” might be detailed enough if they are both something that can be completed in less than a week. NOTE: for the first few revisions of the project schedule, “Train All Staff” might be a perfectly appropriate placeholder for additional tasks. Once the schedule is finalized, that task should be decomposed into the smaller example tasks noted above.
- Assign duration to each task. How long will each task take to complete?
- Assign the required staff or vendor resources. Who will actually be responsible for completing each task?
- Identify any dependencies. Some tasks cannot be done until another task, called a predecessor is completed. For instance, think of a project called “Hire a new Loan Officer.” The task “Make an Offer” cannot be done before the task “Interview candidate.” so making an offer is dependent upon the interview. These dependencies should be highlighted in the project schedule so that the impact of missed predecessors is clear.

For many technology projects, and for MFIs in particular, there are seldom enough resources and enough time to complete the tasks sequentially. Therefore, tasks have to be overlapped so several happen at the same time. Project management software (such as Microsoft Project) greatly simplifies the task of creating and managing the project schedule by handling the schedule logic for you. If Microsoft Project is unavailable, a schedule can be created and managed within Microsoft Excel.

The schedule should be actively managed by the Project Manager. The PM should use the schedule to guide the tasks completed week to week and month to month. Finally, there has yet to be a project in the history of project management where the original project schedule remained unchanged throughout. All changes must be accurately noted and distributed to the team and the customer on at least a weekly basis. The schedule can be used as a communication device to share progress against plans with the key stakeholders and sponsors of the project.

## **Budget Management**

Each project task will have a cost, whether it is the cost of the labor hours of a computer programmer or the purchase price of new computer hardware. To prepare the project budget, each of these costs is estimated and then totaled. A typical project budget is comprised of three key elements: Core project budget, reserves and contingency.

- Core project budget: The total estimated cost for each major project task is included in this amount.
- Reserves: Some of these project estimates will be more accurate than others. While an MFI might know how much typical training workshops might cost or how many computers are needed for an automation project, the number of computer programmer hours that the MFI will request might be uncertain. When the estimated cost of an item is uncertain, the project budget often includes a reserve allowance. This is money that is set aside in the budget "just in case" the actual cost of the item is wildly different than the estimate.
- Another reserve fund is called the contingency allowance. For MFIs operating in uncertain political environments or in areas that are subject to difficulties with weather (such as typhoons), maintaining some funds in a contingency pool is critical to address potential delays and project disruptions.

The project manager's job is to keep the actual cost at or below the estimated cost and to use as little of the reserve and contingency as possible.

To maximize your chances of meeting your project budget, meet your project schedule. The most common cause of a runaway budget is a runaway schedule. Meeting the project schedule won't guarantee you will meet the project budget, but it significantly increases your chances. And above all, proactively managing the project scope is critical to managing the budget. As described in the scope management section, strict management to prevent scope "creep" is essential for success. If legitimate changes to scope must be made, they should be managed with a formal change control process and must include budget and/or schedule adjustments to match the new feature requests.

## **Communications**

Communication is an essential process in the world of project management (and for that matter the world in which we all live on a day to day basis). As the Project Manager, how and what you communicate within your team and with the project stakeholders will go a long way in determining customer satisfaction on the projects you manage. Communication on an effective team starts from day one, from the moment a project is assigned, and continues on a daily basis, if not hourly basis, throughout the life cycle of a project. Effective communication means that each and every project team member should be fully apprised of the project status (at least on a macro level) at all times. Some detailed information may not be shared with all team members if they are very individual specific, but the critical items impacting scope, budget or schedule should always be shared among the entire team. Communication can also take the form of regular updates to the assigning party as to status of the project and/or specific components of it.

Project managers have three critical types of stakeholders with whom they should be communicating: people on the project team, executive leadership and sponsors, and external stakeholders.

### **Communicating within the Team**

Internal communication within the project teams is to meet their four major communication needs:

- Responsibility of each team member for different parts of the project
- Coordination information that enables team members to work together efficiently
- Status information tracking the progress, identifying problems and enabling team members to take corrective action
- Authorization information - decisions made by customers, sponsors, and upper management - that relates to the project and its business environment, and enables the team members to keep all project decisions synchronized.

Internal communications happen primarily through team meetings, memos, voice mail, and e-mail. Project managers need to be able to write, speak, and listen well, lead meeting and resolve conflicts effectively.

### **Communicating with Executive Leadership and Sponsors**

External stakeholders, such as the CEO, CFO and Operations lead must be kept informed of progress and their inputs solicited. The communication plan should detail the strategy not only for informing these stakeholders, but for actively managing their expectations as well.

Answer the following questions to decide what information should be relayed to managers and customers:

- Who needs information, why, and when?
- What type of information will they need and in what detail?
- What will your goal be when you communicate with customer and management and what medium will best accomplish that?

### **Communicating with other External Stakeholders**

Every component and every stakeholder in your project, however a minor role he or she may play, is important. Even minor role players have the potential to come out large if they fall behind schedule. So, don't make the mistake of assuming that all players outside the IT department or MFI (such as donors or investors) are already on board with the project. Be proactive in making them a successful part of your project through making personal contact, establishing some rapport face to face, asking for their help, providing them with all necessary information timely, and sending thank-you notes acknowledging their contribution.

### **Communication Plan**

To manage the various levels and types of communication, project managers must create and effectively use a communication plan that documents the various audiences, develop appropriate communication media, establish a communication schedule, and manage the flow of information in and out of the project team.

To create a communications plan:

- Identify the audience – these players will include the project team, various MFI leaders and department heads, and potentially external stakeholders such as donors.
- Identify the right media – should the updates be during face-to-face meetings, via email, during conference calls?
- Identify the purpose – Is the communication a status update? A formal review?





## Risk Management

Risk Management is anticipating what could go wrong, focusing on the most significant and most likely of these scenarios, taking action to prevent them from occurring, having a contingency plan in case the risk wasn't mitigated, and effective communications and active mutual support among team members. It is an ongoing process that should be incorporated into each stage of a project, and when done well, effective risk management can significantly reduce costs and increase quality on any project.

Although all projects have elements of risk, technology projects in particular are prone to a number of unique risks due to the dependencies and inherent complexity involved in software development and execution. The project manager should spend time in the early stages of planning to create a risk mitigation plan and then revisit and update that plan during the project. In this way, the PM can be assured that if things do go wrong, the team is well equipped to immediately respond to the issues and resolve them quickly.

In all projects, the question is not “*will* our risks become issues”? The question is “*when* will our risks become issues, and *which* of these risks will *most likely* become issues?”

### **Making a Project Risk Management Plan**

- 1) Brainstorm what could go wrong during both the project execution and as a result of live system implementation. Select the top 5-10 risks.
- 2) Evaluate the business consequences of each of the risks identified. Express the impact in business terms.
- 3) Predict the likelihood of the risk occurring.
- 4) Rank the top 5 risks based on the combination of impact and likelihood. For example, if a risk has a High impact on the business but a Low likelihood of occurring, it is not as critical as a risk that could have a Medium impact on the business but has a High likelihood of occurring. In general, you should mitigate all risks that are high impact and has a high likelihood of happening.
- 5) For each of the top 5, develop a mitigation plan to prevent the risk from occurring and contingency approaches if it were to happen.
- 6) Re-evaluate the top 5 risk list throughout the project. Focus on the highest risk items to get them off the list.

Priority	Risk Description	Consequences	Severity (0-100)	Likelihood (0-100%)	Combined Score (0-100)	Risk Management Plan
1.	Extensibility goal will drive the increase project time and/or complexity, requiring rethinking about either technology or business processes.	<ul style="list-style-type: none"> <li>Project overruns</li> <li>Users are disenfranchised</li> <li>Problem turns into resolving fundamental business differences</li> <li>Overly-complex if a common business process cannot be defined</li> </ul>	25	80%	20	<b>Mitigation:</b> Get buy-in from business sponsor on value of common business process as part of Initiate and Approve stage; look for and identify differences; move up process consolidation earlier; identify a small number of key empowered decision makers <b>Contingency:</b> Global Steering Committee escalation, allow for 1-week combined JAD Session
2.	Resources are distracted with supporting existing system(s)	<ul style="list-style-type: none"> <li>Project will be longer than intended</li> </ul>	10	90%	9	<b>Mitigation:</b> Build partial resources into plan, build slack into plan, mitigate significant solution issues ahead of time, split up and specialize team, get lower Service Level Agreement <b>Contingency:</b>
3.	Unclear user expectations	<ul style="list-style-type: none"> <li>End solution will not be accepted and not used</li> <li>End solution will not solve the most important business problems</li> <li>Tacit and explicit requirements in solution will not be available</li> </ul>	20	40%	8	<b>Mitigation:</b> Use prototyping, start with conference room pilot <b>Contingency:</b> Lengthen post testing enhancement period
4.	Lack of clear sponsorship from one or many sponsors across geographies and functions. No clear governance	<ul style="list-style-type: none"> <li>Needed resources are not allocated</li> <li>Delays of important business decisions</li> <li>Project will not be in sync with broader objectives</li> <li>Slow budget sign-off if more funds are required</li> <li>Unclear scope</li> </ul>	30	25%	7.5	<b>Mitigation:</b> Don't start without a clear sponsor <b>Contingency:</b> Stop project – no need to spend money on path of known failure
5.	Future requirements are not possible with selected technology	<ul style="list-style-type: none"> <li>One-off fixes add up to spaghetti code and high cost of ownership</li> <li>Phase II and III will require new &amp; large investment</li> </ul>	12	30%	3.6	<b>Mitigation:</b> Conduct proof of concept, involve extended team early, force third-party "expert" technology analysis, conduct visioning session with small focus group <b>Contingency:</b> Ensure open hooks to other technologies

*This example has been adopted from the Ray Hoving Associates, LLC presentation for the University of Virginia McIntire School.*

## Other Resources

For more information on project management standards, best practices, and resources, visit the Project Management Institute at <http://www.pmi.org/Pages/default.aspx>.

Included in our project management resources are:

### MIS Implementation Project Plan in MS Excel and MS Project

These templates have common tasks necessary to run an IT project, including recurring tasks as weekly status reports, from project inception to completion.

### MIS Project Budget Template in MS Excel

This template lists common resources needed to complete an MIS project. Use this to double check that required human, software, hardware, and other resources are included in your budget.

### Risk Management Worksheet in MS Excel

This template is an Excel worksheet similar to the given example.