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INTRODUCTION

We participate in hundreds of enterprise software solutions projects every year. A majority of these projects revolve around identifying and conducting business process improvements driven by those software solutions, and involved in bringing the solution to our customer. But whatever the type of enterprise software or project, we have found that a strong project management plan is the most influential factor in separating the successful projects from the unsuccessful.

At Ultra Consultants, we follow the project management principles laid out by the Project Management Institute (PMI). The Project Management Body of Knowledge (PMBOK®) Guide defines project management as the “application of knowledge, skills, tools, and techniques to project activities to meet project requirements.” (Project Management Institute, 2013) This is accomplished through the use of a series of five process groups: initiating, planning, executing, monitoring and controlling, and closing.
COMMON CHARACTERISTICS OF PROJECT MANAGEMENT

Project management is an integrative endeavor where an action or failure to take action in one area will usually affect other areas. Common characteristics of project management include:

- Identifying requirements
- Establishing clear and achievable objectives
- Balancing the competing demands for quality, scope, time and cost
- Adapting the specifications, plans, and approach to the different concerns and expectations of the various stakeholders
- Understanding and utilizing knowledge and skills from the following areas: Application area knowledge, standards, and regulations
- Comprehension of the project environment
- General management knowledge and skills
- Interpersonal skills

The project manager’s job is to lead the project and bear the ultimate responsibility for accomplishing the project objectives. Ideally, project managers for an enterprise solutions project should be experienced with multiple like projects, and have led successful business process improvement, selection, and implementation and change management projects involving enterprise software.

COMMON CHARACTERISTICS OF THE BEST PROJECT MANAGERS

Debatably, one of the most important skills of a successful project manager is the ability to interact interpersonally. In our experience, the best project managers exhibit the following qualities:

- **Effective in Communication**
  Be able to easily exchange information throughout all levels of the company.

- **Influential to the Organization**
  Possess the ability to “get things done.”

- **Leadership**
  Be able to develop a vision and strategy, and motivate people to achieve said vision and strategy.

- **Ability to Motivate**
  Must energize people to achieve high levels of performance and to overcome barriers to change.

- **Ability to Negotiate and Manage Conflicts**
  Be able to confer and work diplomatically with others to reach an agreement.

- **Problem Solving Skills**
  Be able to define the problem, identify alternative solutions, analyze results and be sound decision makers.
Project management is an integrative endeavor where an action or failure to take action in one area will usually affect other areas.
THE BASIC STRUCTURE OF YOUR PROJECT TEAM

Below is a list of team structures we commonly recommend in project engagements:

• **Steering team** – This group is comprised of the project manager, company executives and the project sponsor. This group oversees the entire project to assure that cross functional improvements work well for the enterprise and fit into the strategic planning framework.

• **Core team members** – These people report either directly or indirectly to steering team members and are responsible for performing project work as a regular part of their assigned duties. Core team members are functional players exhibiting high potential be the steering team leaders of the future.

• **Project management team** – This group includes all parties above: project manager, steering team and core team. The project management team ultimately has a professional responsibility to the stakeholders of the project, including customers, company organization and public, for the overall outcome of the project.

PROJECT MANAGEMENT PROCESS GROUPS DEFINED

Projects are composed of processes. A process is a series of interrelated actions and activities that are performed to achieve a product, service or result. The project management process groups are divided into the following five distinct but closely related groups; Figure 1 demonstrates the relationships between the groups:

1. Initiating Process Group
2. Planning Process Group
3. Executing Process Group
4. Monitoring & Controlling Process Group
5. Closing Process Group

Process groups have a few defining factors. First, they are integrative and iterative, with iterative implying these are not discrete, onetime events, but events that occur more than once. Second, these groups are also known to overlap one another and occur at varying levels of intensity throughout each phase of the project. However, don’t let this use of the word “project” confuse you – process groups are not the same as project phases.

For a project to be successful, your project team must do the following in terms of process groups:

• Within the process groups, select appropriate processes that are required to meet project objectives.
• Use a defined approach to adapt the product specifications and plans to meet project and product requirements.
• Comply with requirements to meet stakeholder needs, wants and expectations.
• Balance the competing demands of scope, time, cost, quality, resources and risk to produce a quality product.
There are a couple things to note about process interactions. In general, the output of one process either becomes the input to another process or is a deliverable of the project. This interaction is defined within the PMBOK® Guide in terms of inputs, tools and techniques, and outputs. These terms can be defined as such:

- **Inputs**: Documents or documental items that will be acted upon
- **Tools and Techniques**: Mechanisms applied to the inputs to create the outputs
- **Outputs**: Documents or documentable items that are a result of the process

**GROUP #1: THE INITIATING PROCESS GROUP**

The Initiating Process Group is critical in starting a project properly. Its primary purpose is to:

a) Develop the project charter and  
b) Identify stakeholders

In order to accomplish these tasks, you must receive the correct authorization, financing, and identification of all stakeholders.

**What is a Project Charter?**

A project charter contains an overview of the project. It highlights the approach the project will take and all signatures needed to approve the project. This document authorizes a project manager to utilize organizational resources for specific use of the project.

In order to create a project charter, you must interact with the person who wishes the project to be completed, also known as the project sponsor, or the project management office (PMO). Basically, the project sponsor must have the authority to commit organizational resources and funding to the project in order to move forward.

**Identifying Stakeholders**

A “stakeholder” is any person or organization that is actively involved in a project, or whose interests may be affected positively or negatively by execution of a project. Stakeholders can be internal to the organization or external. The project manager must document relevant information for all identified stakeholders. This information may include the stakeholder’s interests, involvement, expectations, importance, influence, and impact on the project’s execution as well as any specific communications requirements. It is important to note that although some identified stakeholders may not actually require any communications, those stakeholders should be identified.

After completing the processes in this group, a project manager has the authority to use organizational resources for project activities.
Whatever the type of enterprise software or project, we have found that a strong project management plan is the most influential factor in separating the successful projects from the unsuccessful.
GROUP #2: THE PLANNING PROCESS GROUP

The primary purpose of the Planning Process Group is to define and refine project objectives in order to plan and select the best course of action to attain these objectives. This plan is also known as the project management plan, a top-level course of action that describes how to manage the project or phase.

Planning Process Group: 8 Knowledge Areas

Within the project management plan are eight specific knowledge areas of consideration:

1. **Scope management** – It is necessary to define the scope of your project in order to develop a detailed scope statement. This statement serves as the basis for project decisions. It contributes to the work breakdown structure (WBS), which decomposes project work into manageable components called work packages. The WBS serves as the basis for a schedule.

2. **Project time management** – Activity definition is crucial to time management, as identifying the specific activities that need to performed in order to deliver the product or service is essential to each project. Each activity needs to be documented, and the resources and durations of each must be estimated. With all the documentation and the estimations required below, one can initiate schedule development, or the process resulting in a baseline project schedule.
   - **Activity resource estimating** – This is the process of estimating the level of effort needed for each activity in terms of a person’s resource time. The results of this process include a resource breakdown structure (RBS), resource requirements and a resource calendar.
   - **Activity duration estimating** – These estimates are needed in order to achieve proper schedule development. One thing to keep in mind, duration differs from actual estimated time of effort. For example, an activity could take one week for one person to complete, but if the person can only devote 50% of their time, then it will take the person two weeks to complete the project. In this example, the level of effort is one work week, but the duration is two work weeks.

3. **Project cost management & budgeting** – This area encompasses estimating costs and determining a budget. Cost estimating uses the information collected in developing the project schedule and resources to develop an approximate cost for each activity. Cost budgeting aggregates the costs of each activity to develop a cost baseline.

4. **Project quality management** – The purpose of this area is to exercise quality planning, which identifies which quality standards to apply to the project and how to measure them. This results in a Quality Management Plan, quality metrics, quality checklists, a process improvement plan (if needed), and a quality baseline.

5. **Project human resource management** – Human resource planning results in a Staffing Management Plan and project roles and responsibilities.

6. **Project Communications Management** – The Communications Management Plan identifies how communication will be managed for the project. This includes internal communication among the project team as well as external communication. External communication planning can help set expectations and keeping stakeholders informed of progress.

7. **Project Risk Management** – Risk management planning is the process that results in a Risk Management Plan. This plan helps define the approach to managing risk within the project. In order to plan risk management to the fullest, you must do the following:
   - **Identify risks** – Risk identification results in a risk register, which is a ledger of the identified risks for the project. The risk register must be managed throughout the life of the project.
• Perform qualitative risk analysis – This process is a technique identified by the PMBOK® Guide for prioritizing risks based on a risk score, which is a function of probability and impact.

• Perform quantitative risk analysis – Quantitative risk analysis, according to the PMBOK® Guide, is a process necessary for numerically analyzing the effect of a risk on the project.

• Plan risk responses – Every risk must have a risk response. In order to mitigate risks, a set of actions must be considered to reduce the threat of risks (negatively impacting risks) on a project. This involves identifying a mitigation strategy for each risk.

8. Project procurement management – Planning procurements includes purchases and acquisitions as well as plan contracting.

Every knowledge area listed above requires attention during the project planning phase. If the planning of the project and the decomposition of the work is incomplete at the end of the project planning phase, then you can expect quality, cost or schedule issues in later phases — specifically in the next process group and project phase, execution.

GROUP #3: THE EXECUTING PROCESS GROUP

The PMBOK® Guide states:
“The Executing Process Group consists of those processes performed to complete the work defined in the project management plan to satisfy the project specifications.”

This group integrates and coordinates people and other resources to carry out the project management plan. The processes in Figure 2 make up the Executing Process Group.
Direct and manage project work

The Direct and Manage Project Work process belong to the Project Integration Management knowledge area. Some outputs of this process are deliverables, work performance data, and change requests. Some activities in this process include managing IT risk, performing activities to accomplish project objectives, and managing sellers and suppliers.

Perform quality assurance

The Perform Quality Assurance process belong to the Project Quality Management knowledge area. This process involves auditing of quality requirements and quality control measurements. The process essentially makes sure the quality standards and operational definitions are being used during project execution. As you might expect, some outputs of this process are change requests and updates to the project management plan and project documents.

Acquire, develop and manage project team

All these processes are part of the Project Human Resources Management knowledge area. The key outputs of these processes are:

- Acquire project team
  Typical outputs include assigning staff and creating resource calendars. Negotiations and acquisitions are part of this process.

- Develop project team
  Typical outputs include conducting performance assessments. All development related activities, such as training and team-building, are performed in this process.

- Manage project team
  Typical outputs include updates to the project management plan and other project documents. Project performance appraisals and conflict resolution are part of this process.

Manage communications

Managing communications for the project includes internal communication among the project team as well as external communication. External communication management can help set expectations and keeping stakeholders informed of progress.

Conduct procurements

Key activities in this process include selecting a seller, awarding a contract, and signing an agreement. Key inputs to this process are the make-or-buy decision, the source selection criteria, the seller proposals, and the procurement statement of work.

Manage stakeholder engagement

Managing stakeholder expectations, stakeholder needs, and addressing issues in the project life-cycle. Key outputs of this process are the issue log and change requests.
GROUP #4: THE MONITORING & CONTROLLING PROCESS GROUP

Anyone who has worked on any type of project knows projects can be delayed for many reasons. The hard reality is that projects rarely go as planned. When this happens, it is time to tap into strategy for project management methodology, and specifically the Monitoring and Controlling Process Group, as this is the group used to trigger the change requests necessary to get a project back on track.

The PMBOK® Guide describes this process group as the following:

“The Monitoring and Controlling Process Group consists of those processes required to track, review, and orchestrate the progress and performance of a project; identify any areas in which changes to the plan are required; and initiate the corresponding changes.”

Keeping an eye on project performance and reacting quickly and appropriately to issues is key to successfully pushing your project forward. Tasks in this process group include the following:

Monitor and control project work

This includes tracking, reviewing, and reporting progress to meet the performance objectives defined in your project management methodology. Regularly assess progress related to scope, benchmark goals, timeline, and budget will help ensure there are no unpleasant surprises as the project unfolds.

Perform integrated change control

Even well-planned projects are going to require change from time to time. Therefore the following processes are essential: reviewing all change requests, approving changes, managing changes to the deliverables, and organizing process assets, project documents and the project management plan.

Verify scope

Verifying the scope includes monitoring the status of the project and managing changes to the scope baseline. This task also requires a re-visiting to other process groups to be sure all objectives have been met. If this is not the case, reflecting any changes is part of the follow-through needed as the project continues toward completion.

Control scope

If there have been adjustments to budget, timeline, or the desired end-product, it is important to re-visit the documentation related to scope and mitigate any unresolved challenges. Controlling the scope also entails maintaining effective communication with stakeholders and related stakeholders, which will keep everyone updated and engaged in the project’s success.

Control schedule

Schedule control involves controlling project progress adjustments and addressing any unforeseen circumstances in relation to the project schedule baseline. Monitoring the project properly to decrease the chances of schedule issues becoming major setbacks.

Control costs

Since there is the potential for many factors to affect cost throughout the project timeline, this task must keep track of any changes in budget so communication around cost control is clear and accurate.
Perform quality control
This task must quantify and report any and all quality control issues. This action is necessary and ongoing to support the accuracy and responsiveness of the project. Process adjustments must also be made based on findings during monitoring.

Report performance
It is imperative this group collect and report performance data in order to complete proper forecasting with regard to timeline and phasing. To support positive relations, it is necessary this project group keep stakeholders aware of team progress toward benchmark goals.

Monitor and control risks
Tracking risk, responding to documented risk, and evaluating response to risk is all part of ensuring the project progresses effectively through each phase of the timeline.

Administer procurements
Because your team’s needs will change throughout the project, additional items may be required while other items and services may not be needed at all. In order to deliver the project within or as close to budget as possible, it is necessary to keep track of all paperwork that documents any changes in contracts.

GROUP #5: THE CLOSING GROUP
According to the PMBOK® Guide, the purpose of the Closing Group is to conclude all activities across the groups and to formally complete the project, phase, or contractual obligations. There are two main processes in this group – close the project (or phase) and close procurements.

Close project (or phase)
Looking back over the various phases of the project as the entire undertaking comes to an end is an important task. It is the project manager’s responsibility to make sure no pieces have been left unaddressed. During this phase, the project manager will meet with team leaders to close out all work orders related to individual team participation.

Close procurements
In the Close procurements process the project management process group accepts delivery of the product and closes the corresponding procurement agreements. This includes activities such as closing out invoices and preparing the final report in a timely manner, which have a positive impact on future opportunities.

Key points for the Closing Group
After completing the processes in this group, a project manager must release the organizational resources so they can be deployed in other projects. If you are closing a phase, the lessons learned are carried forward and addressed in the next phase.

How to use this group to close your project
The day when a project concludes successfully is one to remember. But it is important to make sure to tie up all loose ends and close the project carefully. It is recommended that key stakeholders are invited to a close project meeting, also called a post-project review, to discuss everything that occurred in the project time frame.
Since every engagement is a learning experience, it is encouraged that all close project meeting attendees be open about their observations and lessons learned during the project term. We also ask members to evaluate the project against objectives, budget, quality requirements, and end deadline. Last but not least, team members should make it a point to celebrate their accomplishments to further bonding and encourage a successful future.

References


ABOUT ULTRA CONSULTANTS

Ultra Consultants has a deep passion for helping our clients realize technology-driven business transformations that deliver measurable and impactful business and technology improvements. Our focus is on manufacturing and distribution companies. Our knowledge of industry best practices and enterprise software solutions enables our clients to realize their transformation goals:

- Dramatic improvements to existing business processes structured upon industry best practices and differentiating business models.
- Accelerated process for selecting and successfully implementing the best enterprise and related solutions that align to the needs and future goals of our clients.
- Negotiated software purchase agreements and implementation services that deliver the best Total Cost of Ownership for enterprise and associated technologies.
- Successful realization of ROI goals and aspirations of our clients through Business Analytics, Process Excellence, Lean, Six Sigma, and other proven methodologies.

Driving these four strategic activities is a highly professional and competent Ultra team to facilitate the complexities of risk management and change throughout our clients’ organizations.

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