

TOPIC: PROJECT PLANNING

1. What is a project management plan?

A project management plan is a formal document that defines how a project is going to be carried out. It outlines the scope, goals, budget, timeline, and deliverables of a project, and it is essential for keeping a project on track.

You write a project plan during the project planning stage of the project life cycle, and it must be approved by stakeholders before a project can move on the execution stage. If some of these terms are new to you, you can get up to speed with this post on project management terms. This means your project plan must be engaging, organized, and thorough enough to gain the support of your stakeholders.

2. A project management plan should include the following sections

- **Executive Summary:** A short description of the contents of the report
- **Project Scope & Deliverables:** An outline of the boundaries of the project, and a description of how the project will be broken down into measurable deliverables
- **Project Schedule:** A high-level view of project tasks and milestones (Gantt charts are handy for this)
- **Project Resources:** The budget, personnel, and other resources required to meet project goals
- **Risk and Issue Management Plan:** A list of factors that could derail the project and a plan for how issues will be identified, addressed, and controlled

Communication Management Plan: A plan for how team and stakeholder communication will be handled over the course of the project. Basically, a project plan should tell stakeholders what needs to get done, how it will get done, and when it will get done. That said, one size does not fit all. Every project management plan must be tailored to the specific industry and circumstances of the project.

3. The Project Cycle

The process of planning and managing projects follows a logical, continuous cycle. Each phase of the project leads to the next.

- **The identify** stage includes a needs assessment process to determine the needs and problems in a community.
- **The design** phase includes the actual planning and design of a project.
- **The implement** stage refers to the implementation of the project, whether it is a single-year or multi-year implementation period.
- **The evaluation** of project results occurs at the end of a project and involves determining whether the project's goal and objectives were achieved. The evaluation stage then leads to the identification of additional or persisting problems, allowing the cycle to begin again.

- **Project monitoring** occurs throughout all stages allowing for small adjustments in the project's planning, design, and implementation in order to ensure the project's success.

4. An Overview of Project Planning

Project planning involves a series of steps that determine how to achieve a particular community or organizational goal or set of related goals. This goal can be identified in a community plan or a strategic plan. Project plans can also be based on community goals or action strategies developed through community meetings and gatherings, tribal council or board meetings, or other planning processes.

The planning process should occur before you write your application and submit it for funding.

Project planning:

- Identifies specific community problems that stand in the way of meeting community goals.
- Creates a work plan for addressing problems and attaining the goals.
- Describes measurable beneficial impacts to the community that result from the project's implementation.
- Determines the level of resources or funding necessary to implement the project.

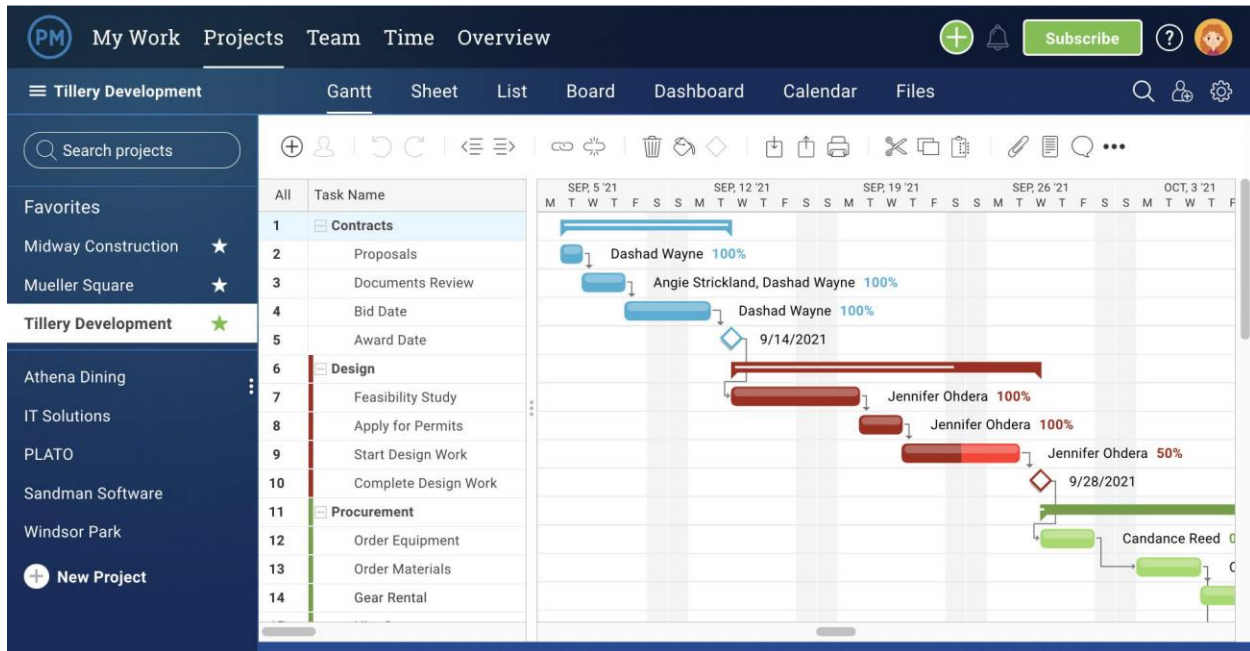
5. Why is project planning important?

Project Planning helps us to:	Project Planning helps to eliminate:
• Think ahead and prepare for the future	• poor planning
• Clarify goals and develop a vision	• overambitious projects
• Identify issues that will need to be addressed	• unsustainable projects
• Choose between options	• undefined problems
• Consider whether a project is possible	• unstructured project work plans
• Make the best use of resources	
• Motivate staff and the community	
• Assign resources and responsibilities	
• Achieve the best results	

6. The Statement of Work (SoW)

No matter what industry you're in, the one constant throughout the life cycle of a project is paperwork. There is always plenty of paperwork to create, have approved, file and finally archive. all of those documents are important, but the Statement of Work (SoW) is easily one of the most important because it's made at the outset of a project and outlines everything that needs to go into your project.

Using effective project planning tools and a thorough and well-written statement of work will set you up to successfully lead a project over the finish line on schedule and within budget.



6.1. What Is a Statement of Work?

The SoW is the document that captures and defines all aspects of your project. You will note the activities, deliverables and the timetable for the project. It is an extremely detailed document as it will lay the groundwork for the project plan.

It's one of the first documents you'll create to lay out the entire landscape of the project before you plan and execute. Because of the great amount of detail required, the prospect of writing one can be daunting. Therefore, let's break it down into more digestible parts.

6.2. What Is the Use of a Statement of Work?

As noted, the statement of work is a detailed overview of the project in all its dimensions. It's also a way to share what the project entails with those who are working on the project, whether they are collaborating or are contracted to work on the project. This includes stakeholders like vendors and contractors who are bidding to work on the project.

It's also helpful to the project leader, as it provides a structure on which the project plan can be built on. The statement of work will also help to avoid conflicts in the project. With detail and clarity, the SoW helps keep everyone that's involved in the project on the same page and works to leave confusion to a minimum. When building your schedule, it helps to use a project management software.

It can be immensely helpful for organizing your tasks and resources, as it's critical to make an accurate schedule at this stage in the project. Watch the video below to learn more about how

project management software can help you make a schedule, and then stick to it so you can manage a successful project.

6.3. Different Examples of a Statement of Work

A SoW can be broken down into categories. There are three main types, which can be basically defined as follows.

6.3.1. Design/Detail: When you're writing this SoW what you're doing is conveying to the supplier how you want the work done. What are the buyer requirements that will control the supplier's process? You can use a requirement gathering template to make sure you gather them all. These requirements can run the gamut from quality to measurement of materials. In this SoW it's the buyer who is being held responsible for the performance as they are the one who is directing its course.

6.3.2. Level of Effort/Time and Materials/Unit Rate: This is an almost universal version and it can apply to most projects. What it defines is hourly service as well as those materials required to perform the tasks. It tends to find use in short-term contracts.

6.3.3. Performance-Based: This is the preferred SoW of project managers as it focuses on the purpose of the project, the resources and the quality level expected of the deliverables. It does not, however, explain how the work is supposed to get done. This allows a great deal of autonomy on how to get to an outcome without requiring a specific process.

6.4. How to Write a Statement of Work

When you're writing a statement of work, it can help to use a statement of work template because of all the various aspects of the project that it must capture. Most templates will include things such as a glossary of terms defining what you're referencing in the SoW. There will be a place for you to write the statement of purpose, as well as administration information.

PROJECTMANAGER

Statement of Work

Introduction

Name of Project
Write the name of your project here

Contact	Email/Cell
Sponsor:	
Stakeholder:	
Project Manager:	
Team Member:	
Contractor/Vendor:	

There is a lot of information to describe in the SoW. You can create this on your own if you want, but any measure to make sure nothing is left out will prove helpful. You only have one chance to create this document, and you want it done right.

In terms of writing the proposal, you will want to be specific. You want to clarify the terms used to make them universally understood. also, clearly define who is going to do what and by what time those tasks must be completed. Doing this avoids confusion later in the project when you cannot afford any miscommunications or disputes. besides writing clearly, you should include visuals in the SoW.

This will help focus the lens on the various aspects of the project. Including visuals, be they charts, graphs or other illustrations to help you clarify the project, will make the SoW more digestible. After all the work you've done in detailing the specifics of the project, you don't want to neglect the final, crucial step — getting the work signed off. You can't proceed if you don't have the authority to do so. Or, more accurately, you can, but it might cost you the success of the project. Therefore, make sure that those in authority have signed off on the statement of work.

7. Project Specifications

A project specification document (also called the project charter) is a valuable tool when starting any kind of project, from construction to software development. whether you're planning to launch a website, a mobile application, or any other type of digital project, writing a project specification is the first step of a successful project and serves as the first step of project planning.

7.1. What are project specifications?

A project specification is a document, used for successful project management, that defines the management plan of a project as a whole. It lists the needs, objectives, constraints, expected features, deadlines and budget as accurately as possible. used internally or externally, a project specification can become contractual in the case of a service signature, and it is mandatory in the case of a request for tender.

7.2. What is the purpose of writing down project specifications?

7.2.1. Project specifications can be used to:

- Get authorizations to start a building project,
- Think about objectives and set them,
- Assign the priorities of the project,
- Help key stakeholders give you more relevant advice,
- Estimate the budget, resources, and project deliverables necessary to the successful completion of a project.

In concrete terms, this documentation will serve as a basis for the planning and management of a project. The development process cannot start without comprehensive project specifications.

7.3. Who writes the project specification?

Ideally, project specifications should be written by the company that initiates the project. It can be the project manager or the project owner to:

- reflect the corporate culture and company values better than an outside person,
- stay as close as possible to the needs of the end-user.

Don't hesitate to surround yourself with experts that can give you advice, but you must also collect information from end-users and clients, because they will, after all, be the ones who use the solution. If you've hired a third-party contractor, such as a web agency, all you have to do is validate the various elements and make sure that the scope of the project has been covered.

7.4. 10 elements to include in your project specification

If this is your first time creating this type of documentation, we recommend including the information you find most beneficial. It is important to note that the more detailed you make your project charter, the more convincing it will be and it will serve as a key reference for all project stakeholders, as well as the timeline for effective project execution.

Find below a list of 10 things you should include in your project specification.

1. Present the company

This first part gives a quick description of the company so that the third-party contractor understands the identity of his customer. The presentation should include:

- your sector of activity,
- your core business,
- your flagship products or services,
- key project stakeholders.

Here, you should not go too much into detail, you should mainly list the key information about your company so that a person can understand in a few lines your project goals.

2. Name your project

To begin, you must use a descriptive title when naming your project. For example, naming your project "Business Campaign" may not be relevant as it does not describe the purpose

of the project nor does it differentiate said project from others. however, if a title such as “International Business Campaign to Generate new Leads in Europe” is used, you will inform readers about the goal of the campaign right away.

- **Identify the context**

The aim here is to explain the ins and outs of the project "body of knowledge" so that all the project stakeholders understand the issues and work to respond to them as well as possible.

- **Set objectives**

Each project has different goals. This is why it is essential to know them in order to move in the right direction and make the right decisions. Your objectives should be SMART (Specific, Measurable, Attainable, Relevant and Time-bound).

3. Set your target

By describing your target(s) accurately, you will have a high chance of reaching them. This is not an easy exercise to do, but it will save you a lot of time once you have done the work.

Describe your marketing persona, i.e. the fictitious profile of your ideal customer, with as much information as possible (age, interests...).

To glean this information, you can:

- Ask your customers questions.
- Analyze information from your prospects;
- Read the discussions on the forums dealing with their problems.
- Collect more precise information via the use of contact or download forms.

4. Identify your competition

In order to position your project successfully, you need to know your main and secondary competitors, their strengths and weaknesses, as well as your Unique Selling Points.

Then, you are free to determine your positioning by offering something fundamentally new or better.

5. Use a graphic charter

It is recommended to write this part when you already have a graphic charter and you want to keep it for the project. It can also be used if you want to create a new graphic chart that is in line with the previous one.

6. Set your project budget

Break down the project cost structure and where the funds will come from. This section could also list any additional estimated resources and materials needed to execute your project and ensure it meets your standards.

7. Set a completion time

Set a deadline by which the project must be launched. As with the budget, don't underestimate the time required to complete each element, and be realistic. For complex projects, do not hesitate to set different milestones and make a schedule in the form of a Gantt chart.

8. List functional specifications

The functional part of the project charter is used to translate project requirements into functionalities.

It is recommended to go as much in detail work breakdown to ensure that the functionalities are well understood and the project scheduling up to par with your expectations.

Describe each functionality as follows:

- title,
- objective,
- description,
- subfunctions,
- constraints and business rules,
- level of priority.

9. List technical specs

The technical part consists of describing how the functionalities will be implemented, and are especially important in the case of software development.

Moreover, this part highlights the technical requirements and constraints of the project to meet the needs of end-users.

Here is a non-exhaustive list of elements that can be used:

- online payment methods,
- hosting solution,
- server architecture,
- choice of platform or CMS,
- administration tools,

- integration constraints,
- computer language,
- data security management,
- maintenance,
- migration,
- browser or operating system compatibility
- expected performance (loading times, general speed...)

10. Appendix

Here you should put all the documents and detailed information that are required to complete the project. These may include wireframes, mock-ups, drafts, etc.

Project specification examples

Since project charters can be adapted according to the type of project you use and its complexity, therefore, it is recommended to consider different examples of project charters before writing your own. Here are two project charter examples that may inspire you to design your own.

8. Here are two project charter examples that may inspire you to design your own.

Project name: Improve order fulfillment process to reduce lead time and increase revenue.

Date: 2/19/2019

Project manager: Phil Acres

Project sponsor: Anna Yost

Purpose: The purpose of the project is to cut fulfillment order lead time by 50%, so we meet specifications set by Your Home Delivered and become their preferred furniture supplier.

Description: Design and develop new order fulfillment processes to help land \$1 million deal with Your Home Delivered.

Objective:

- To become Your Home Delivered's preferred supplier by the end of the year.
- To become a lean fulfillment center and operate with 50% less non-value added time at each step.

Project specification:

- Consistently fulfill all orders placed by Your Home Delivered before due date.
- Maintain same amount of employees while processing 50% more orders within six months.

Budget:

- The project has a budget of \$258,000 - \$190,000 for new processes and \$68,000 for miscellaneous and overhead expenses.

Deliverables:

- Customer satisfaction report.
- Cross-docking practices performed at warehouse.

In scope:

- Update current receiving process.

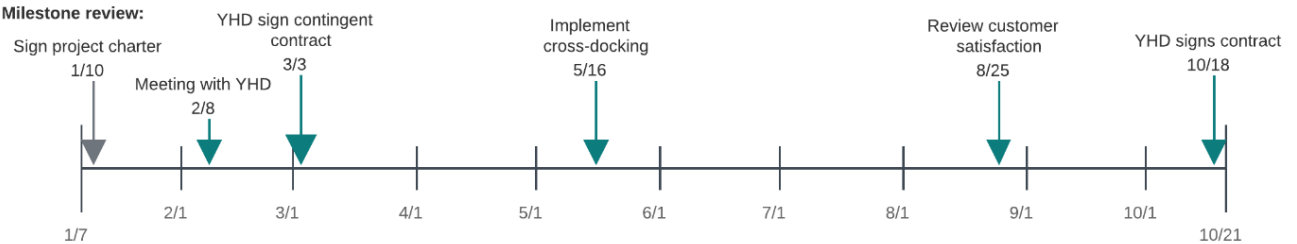
Out of scope:

- Identify cheapest carrier services.

Project risk:

- Shipping carriers have limited flexibility, and it might be hard to make adjustments to our current shipping schedule.

Milestone review:



Legend: ■ On schedule ■ Behind schedule ■ Complete

Key stakeholders



Holmes Dever | CEO of Best Furniture Inc.



Anna Yost | Project sponsor



Your Home Delivered



Best Furniture Inc.

Roles and Responsibilities



Phil Acres | Project manager | Responsible for completing project and staying within budget.



Matteo Gobeaux | Warehouse manager | Responsible for signing off on new processes and ensuring orders are fulfilled while project is in the works.



Norma Perry | Team member | Responsible for documenting current processes and recommending new processes.



Shana Macguire | Team member | Responsible for recommending and documenting new cross-dock processes.

Project approval requirements:

- Manufacturer approval for new product packing requirements.

Signature of project sponsor:

Anna Yost

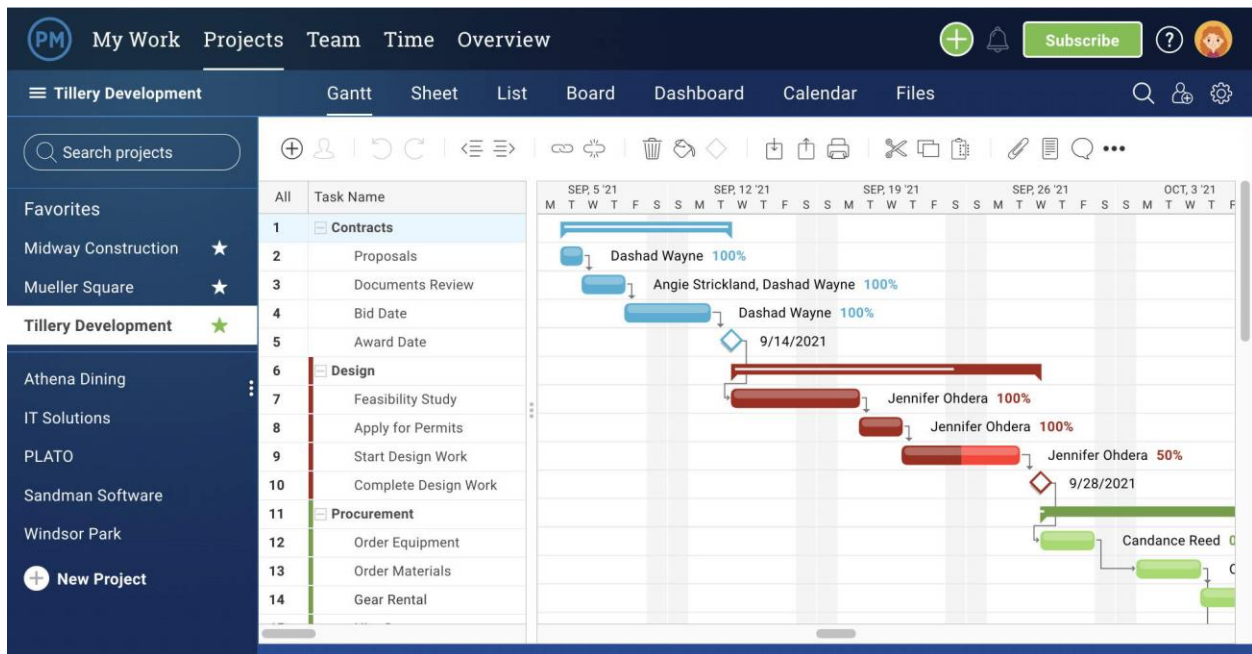
Date approved:

1/10/2019

Project Description				
Outsource content writing to support web content development goals. This project will last for one quarter, at which time results will be evaluated for future similar efforts. This project will spend \$6,000 over the course of three months, at which point 16 additional sites will be completed. The \$12K incremental sales value should be higher in years two and three as the sites fully mature.				
Business Need				
Web content development is currently handled in-house and is sufficient to support 2014, 2015, and 2016 growth goals. Maintaining the current in-house approach will result in approximate 16 websites in place by December of 2014, vs a goal of 25 sites. The outsourcing work represents a very low risk since all work will be managed through eLance.com on a contract basis - there will be no permanent headcount changes as a result of this project.				
Project Ownership / Approval				
Project Manager	Robert Jackson	Project Champion	Bob Norris	Approval Date
Project Number	PR-003			11/1/14
Financial & Project Timing Goals				
Payback			Capital/Expense	
	Goal	Actual		
Incremental Sales	\$ 12,000		Expenses Incremental to Operating Budget	\$ 6,000
Profitability (% OI)	N/A		Capital	\$ -
Payback Period (yrs)	0.5		Other	
Annual Savings	N/A			
Milestones (Schedule)				
	Goal	Actual		
Identify High Value Topics	1-Oct			
Define Articles and Outlines	15-Oct			
Begin eLance Outsourcing	15-Dec			
All outsourcing complete	1-Feb			
Resources & Project Risks				
Internal Resources			External Services	
	Total Hours	Peak Hrs/Wk	Budget	Actual
ID high value topics	10	15	eLance outsourcing	\$ 6,000
Article titles and outlines	10	15	Other	
Site development, publishing	10	10	Other	
			Other	
			Other	
Project Risks				
	Medium	High		
Incremental sales assumptions low	X			

9. Milestone Schedules

The milestone schedule is a summary level schedule that allows the project team leader to review and identify all of the significant and major project related milestones that may exist in the course of a project, and can be proven helpful in making sure that nothing falls behind schedule of off the radar entirely.



A project milestone is a management tool that is used to delineate a point in a project schedule.

These points can note the start and finish of a project, and mark the completion of a major phase of work. Milestones can be used to symbolize anything that has started or finished, though it's primarily used as a scheduling tool. If a milestone focuses on major progress points in a project, you can see how it is useful in scheduling. Just as tasks break a larger project into manageable parts, milestones break off chunks of a project to make it less daunting.

9.1. Scheduling with Milestones

Milestones provide a way to more accurately estimate the time it will take to complete your project, making them essential for precise project scheduling. They are often used in scheduling methodologies, such as the Critical Path Method, which can determine major scheduling periods. With milestones, you can better calculate the slack in your project by segmenting the project into intervals, or smaller timeframes to control.

Milestones, like tasks, can be linked. That is when the phase of one milestone cannot begin until the completion of the phase before it. That way you're not blocking team members by having them wait or by not allowing them what they need to move forward with their tasks.

9.2. How to Decide What's a Project Milestone

Milestones measure progress by breaking the project into phases. A milestone is a marker that separates the end of one phase from the start of another. There are typically four phases in project management: initiation, planning, implementation and closure. But when exactly do you add the milestone?

The simple answer is when you've completed everything related to that project phase. For example, completing the project charter is usually the last step in the initiation phase of a project. This would be when you place your milestone to indicate you're moving from initiation to planning.

However, the exact point at which you want to set your milestones might vary depending on your project, your organization and other factors. It's always best to seek help from experts in the industry and in your company. Milestones are more a period in time than the specific completion of a task, so the question arises, can you have milestones that don't relate to project phases? The short answer is yes. You can set any sort of milestones you want in a project. Traditionally, they break projects into phases, but you can choose to create a milestone to indicate a big task, deliverable or more.

9.3. Track Your Progress with Milestones

Part of scheduling a project is being able to monitor and track the progress of that schedule in real-time. Milestones are a way to see how far you've come in the project. By noting the completed milestones, you can measure the distance you are from the finish line of a project.

This comes in handy when you are dealing with stakeholders. Stakeholders are not interested in a granular, detailed report on the project's progress. They want broad strokes that indicate whether or not the project is moving along as scheduled. Milestones are ideal for this kind of reporting because milestones show the major phases you've finished at this point in the project, according to your plan.

When you're presenting to stakeholders, you can show them the milestones you completed this month and the ones you're on track to complete for the coming month — and whether or not the milestones were reached as planned or if there were any delays.

10. The Planning Cycle

10.1. What Is the Planning Cycle?

The Planning Cycle is an eight-step process that you can use to plan any small-to-medium sized project: moving to a new office, developing a new product, or planning a corporate event, for example.

The tool enables you to plan and implement fully considered, well-focused, robust, practical, and cost-effective projects. It also helps you to learn from any mistakes you make, and to feed this knowledge back into your future planning and decision making.



The Planning Cycle enables you to make viable, robust plans, and to avoid making costly mistakes. It is suitable for any small- to medium-sized project, in most business areas. It has eight steps:

1. Analyze your situation.
2. Identify the aim of your plan.
3. Explore your options.
4. Select the best option.
5. Detailed planning.
6. Evaluate your plan and its impact.
7. Implement change.
8. Close the plan.

11. Why do Plans Fail?

Plans by themselves do not guarantee success. They need to be backed by focused effort. Even big organizations are not immune from problems and failures in the implementation of their plans. It often results in huge financial losses and loss of markets. According to one estimate, more than half of the projects initiated in the USA end up in failure, due to improper planning and poor execution. Plans may fail for many reasons. Some of them are listed below.

1. Unrealistic goals: Goals must be realistic, precise, measurable, and achievable. Otherwise, they cannot be translated into actionable plans or achieved with certainty.
2. Frequent and unplanned changes to the original plan: The plan must be created in advance, before it is implemented. Frequent changes to the plans during the implementation phase will lead to many problems and resource constraints.
3. Unforeseen events: The plan must accommodate unforeseen events, catastrophes and contingencies, since no one can predict future. Without backup plans and alternative solutions, plans may fail.
4. Unexpected changes in the macro environment: It is difficult to predict the political, economic and legal changes that happen in the macro environment of a country or the world. They can often render the plans ineffective and useless.
5. Monetary and time constraints: The success of any plan depends upon the availability of time and money. The constraints of time and money are largely responsible for the failure of many plans, especially those which involve complex, time consuming tasks and big budgets.

6. Lack of expertise and skills: Many projects fail when organizations lose their skilled workers, or when they fail to recruit experts or skilled and knowledgeable people to perform specialized tasks.

7. Unrealistic expectations: Many times, organizations draw unrealistic plans and set unrealistic goals, with an aim to save time and money. They may also set unrealistic expectations from their employees during the implementation, resulting in confusion, loss of morale and other problems.

8. Improper planning: Sometimes, plans are hastily drawn, without properly identifying priority areas or setting the goals or establishing proper accountability. Sometimes, these problems are detected very late in the implementation phase, resulting in loss of money, time and effort.

9. Lack of control and discipline: Even the best of plans will fail if they are not properly implemented. Those who are tasked with the implementation of the plan have a greater responsibility upon their shoulders to make it successful. If they are not up to the mark, the plan will fail.

10. Group dynamics: Plans require group effort and the cooperation and contribution of many people. Plans can become derailed, if they do not work in harmony, if there are problems in communication or conflict resolution, or if there are leadership or motivational problems.

Planning requires adequate preparation, organized effort and careful execution. The information which goes into the planning is vital to its successful execution. If the information is faulty, the plan will fail. Planning also requires knowledge and expertise. When you plan for complex tasks or goals, you may need specialized knowledge and skills. The same is true when your plan has a broader scope and involves many people and processes.

12. Stopping Projects



12.1. Reasons for stopping projects

There are several drivers that may cause projects to be stopped before completion.

- **Alignment to Strategy**

While this should be obvious and every project should align to strategy, this is not always the case. For instance, a multi-year project may have started being aligned to strategy. Then an organization takes decisions to change course due to external factors and the project is no longer aligned. a variation of this is where a senior manager has a “pet project” (one they have wanted to complete regardless of how it fits with strategy). It is surprising how many senior managers cannot see past their own need for the project.

- **Business Case**

All projects should have a business case. This is the proposal that supports the investment in a particular project. If the dynamics of the business case change (costs trend much higher than estimates, proposed revenue will be lower, benefits reduced, etc.), the business case should be reviewed and reworked using the new data. If the business case no longer provides the required return on investment, the project should be stopped.

- **Priorities**

Priorities in an organization may change. This does not have to be a change in strategy, it may be that other projects become more important. This may require the re-allocation of resources and budget.

- **To close**

Just because a business case for a project has been approved, it does not mean that it should be left to complete. It is healthy to review and challenge all projects on a periodic basis (at least annually) to ensure that they are still aligned to strategy and the business case dynamics are valid. Doing this will ensure that an organization makes the most effective use of scarce resources.

13. Handling Project Phaseouts and Transfers

There are different routes associated with knowledge transfer involved with various levels:

- Individual
- Project
- Organizational

Best Practice Identified from different Autor's

Autor - Joshi

- The trust and reputation of the person who performs the transfer of knowledge to an individual or team is a precondition in the receptivity of the content
- Frequent communication among those physically installed in the same location provides a more effective transfer of knowledge.

Autor - Liyanage

- Transformation of information into knowledge to be acquired
- Performance metrics to track the effectiveness of knowledge transfer
- Ensure the correct identification and monitoring of the intrinsic and extrinsic influencing factors of the environment
- Strong social interaction within the network of stakeholders in the process of knowledge transfer

Autor - Knudsen

- Adoption of supplementary knowledge transfer

Autor - Goffin e Koners

- Project reviews after project delivery by the team
- Reviews should be done in an animated way, using metaphors and through stories.

Autor - Ajmal e Kosksnen

- Organizational culture must prepare, accept, and adopt knowledge transfer activities.
- Facilitating and encouraging the creation, sharing and use of knowledge should be promoted by the organizational culture.
- Project managers should blend organizational and professional culture into the project culture to foster and engage the culture of knowledge management

Autor - Rottman e Lacity

- Knowledge multipliers through prior training of project managers

14. Management Control

Management control is described as a function that is aimed at achieving defined goals within a set timetable. The process has three major components, like taking remedial action, measuring the actual performance, and setting standards.

The process includes comparing actual and planned performance, measuring the difference between the two, identifying the causes that have led to the difference and taking corrective action to minimize or remove the difference.

In simple terms, it is the process through which the management of an organization influences other members to implement the strategies laid down by the company. it can be a tool, process, policy, practice or a system that is put into place so that the management can direct the resources of its organization as per its wishes to achieve set targets.

14.1. Features of management control

1. Behavioral consideration

The management aims to have a direct impact on the employees of its organization. It adopts necessary strategies to influence their mindset and workings so that they start believing that their personal and professional goals are in tandem. when the employees fulfill any personal target, they are knowingly and unknowingly attaining the company goals.

The managers need to promote goal congruence by offering due incentives as it will result in the betterment of the company.

2. Financial and non-financial performance

These measures are developed as part of management control so that the management can make comparisons between actual performance and planned performance. to reach the long-term goals of a company the management has to put emphasis not only on financial performance but also on other activities like

1. Task control to bring forth the most effective and efficient performance of groups as well as individuals.
2. Management control includes the implementation of strategies
3. Strategic formulations include policies, strategies, and goals of the company

3. Management control activities

The management carries out its functions with the help of several managerial activities which are described below

- Influencing the individuals or groups to change their behavior so that it becomes easy to achieve set goals
- Controlling the actions which need to be taken by deciding on what and when it should be taken
- Evaluation of activities
- Coordinating the activities to make it a synchronized effort

- Communicating the plan and objectives to the individuals and groups in a clear and precise manner
- Planning the course of action so that the company can achieve its target. The management control is also about determining whether long-term or short-term goals are the need of the hour.

15. Fast-Tracking

Fast-tracking is a technique where activities that would have been performed sequentially using the original schedule are performed in parallel. In other words, fast tracking a project means the activities are worked on simultaneously instead of waiting for each piece to be completed separately. But fast tracking can only be applied if the activities in question can actually be overlapped.

When you need to compress a schedule, you should consider this technique first, because fast tracking usually does not involve any costs. This technique simply rearranges the activities in the original schedule. although fast tracking may not result in an increase in the cost, it leads to an increase in the risk, because activities now being performed in parallel may lead to needing to rework or rearrange the project. And reworking the project can cause the project to lose even more time. as a project manager, you'll have to weigh the pros and cons of fast tracking to understand whether it will be worthwhile to undertake increased risk.

16. What is Crashing?

Crashing is the technique to use when fast tracking has not saved enough time on the project schedule. With this technique, resources are added to the project for the least cost possible. Cost and schedule tradeoffs are analyzed to determine how to obtain the greatest amount of compression for the least incremental cost. And crashing is expensive because more resources are added to the project.

Crashing analyzes and categorizes activities based on the lowest crash cost per unit time, allowing the team working the project to identify the activities that will be able to deliver the most value at the least incremental cost. The results of a crash analysis are usually presented in a crash graph, where activities with the flattest slope are the ones that will be considered first—they lead to an equal amount of time savings, but have a smaller increase in cost. Crashing only works if the additional resources will actually achieve completing the project sooner.

When the crashing approach is used, any additional costs associated with rushing the project are reviewed against the possible benefits of completing the project within a shorter time span. In addition, you should consider other items when performing a crash analysis, including adding more resources to the project, allowing additional overtime, and paying extra to receive delivery of critical components more quickly, among others.

Crashing vs Fast Tracking

Week #	1	2	3	4	5	6	7	8	9	10	11	12
Normal	1	1	1	1	1	1	1	1	1	1	1	1
Fast Tracking	1	1	1	1	© BRAINBOX CO							
			1	1	1	1						
						1	1	1	1			
Crashing	2	2	2	2	2	2	2	3	3			

The differences between fast tracking and crashing are:

- Fast tracking involves the performance of activities in parallel, whereas crashing involves the addition of resources to a project.
- In fast tracking, there is increased risk, whereas in crashing there is increased cost.

-----End of the lesson-----

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