INTEGER WEALTH GLOBAL

Integer Wealth Professional Services - Project Management

Project Management Methodologies

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Financial Project Management is the process of controlling the financial aspect of a project, such as its cost, revenue and profit. To do this effectively requires planning, estimating, budgeting, funding, managing project expenses and billing.

It includes key steps such as estimation, budgeting, risk management, and financial reporting. Another term which is frequently used is 'project budgeting' or 'project budget management'.
Professional investment project management employed by Integer Wealth Professional Services (IWPS) plays a critical role in business and corporate development. In a highly competitive environment, it is important for businesses to effectively manage investments, choosing the most suitable projects and rationally using available sources of financing, funding and investments.

Therefore a 'Project Management Methodology' (PMM) is a set of guiding principles that assist in managing a project successfully. There are many methodologies within this professional sector, and some might be better suited to a specific project than others.

1. What Is a Project Management Methodology.?

A project management methodology is a set of principles that project managers and team leaders use to plan, execute and manage a successful project. One of the most common is the 'Agile' project management methodology, which focuses on flexibility and speed as its guiding principles. Others, such as the 'Lean' methodology focuses on waste elimination as the primary principle.

Project management methodologies like these will often have an associated framework that gives project managers processes, procedures and tools based on the principle. For example, the 'Scrum' project management framework is based on the 'Agile' methodology. The 'Kanban' framework is based on the 'Lean' project management methodology.

However, other project management methodologies, such as the 'Waterfall' method include all the principles, processes and tools without a separate framework. For this reason, when discussing the common methodologies and determining which is best for a specific project, IWPS consider in detail the relevant frameworks that determine the best implementation of the chosen principles of management.

The best project management methodologies help complete a project on time and under budget while exceeding quality standards. The 'Harold Kerzner' principle of delivering a project in any industry sector is one that strongly complies to the three basic principles of 'Time, Cost and Quality'.

Considering this, this document will expand on the most common methodologies and their frameworks from which IWPS determine the most suitable method to apply to a specific project.

2. Common Project Management Methodologies.

Arguably the most common project management methodologies are the 'Waterfall', 'Agile' and 'Lean' methods. However, there are many other methodologies available, including the 'PRINCE2', 'Critical Path' and 'Six Sigma' methods. Integer Wealth Global Professional Services generally applies either the Waterfall or Critical Path or a combination of the two, in intensity to what the project requires, but may chose any of the others or a combination of the types, to arrive at a best management option for the client, the project or the investment made to either.

2.1 Waterfall

The Waterfall model is a traditional, linear project management methodology. The model typically includes five or six dependent phases, with each phase relying on the deliverables of the previous one. For this reason, each phase needs to be completed before moving onto the next. As an example, a software development project is illustrated using the six phases of the Waterfall methodology which include:

2.1.1 Requirements: Gather information and create a detailed project plan that outlines each stage of the process, key dependencies, timelines and more.

2.1.2 Design: Common in many industry sectors, i.e. software development, this phase specifies things, including hardware, coding languages and user interface design.

2.1.3 Implementation: Next it is time to develop the product. Using the software example, this is where software development would take place.

2.1.4 Verification: Test the software with a quality assurance (QA) team to discover and fix bugs and defects as well as identify additional risks.

2.1.5 Deployment: At this stage, the software is deployed to the end-user or the final deliverable is given to the end customer.

2.1.6 Maintenance: Maintain the software and make occasional modifications to fix defects, improve performance and add features.

The Waterfall model offers a clear plan from start to finish and identifies requirements early in the process. An emphasis on documentation at every stage supports continuity no matter who works on the project.

This methodology is however rigid and does not account for factors that are unknown early but become relevant later. The linear process does not leave room to iterate when new requirements or constraints become known. This could lead to an inefficient process with an ineffective outcome. For this reason, the Waterfall methodology is only good if you're managing a project with few unknowns.

2.2 Lean

The Lean project management method is focused on delivering value and eliminating waste, which it identifies in three categories by their Japanese names:

2.2.1 Muda: wasted time, resources or effort that don't add value for the end user.

2.2.2 Mura: overproduction and excess inventory accumulated through an irregular workflow.

2.2.3 Muri: overburdening of employees at any stage of a workflow.

The Lean project management methodology specialises in creating a culture of continuous improvement by eliminating waste and empowering employees. It helps reduce costs, increase efficiencies and improve quality and employee morale. One of the primary frameworks for implementing its principles is the Kanban framework, expanded on below.

2.3 Kanban

Kanban is a method of lean project management that gives a visual overview of the project process from start to finish. This helps you manage workflow by showing exactly who is working on what and the status of each project component.

Kanban is a Japanese word that directly translates to 'visual card', so the Kanban system simply means to use visual cues to prompt the action needed to keep a process flowing.

People using the Kanban method rely on a Kanban board, which is often a digital project management tool that offers columns for various steps in a project workflow and 'cards' for each project component moving through that workflow. Cards are moved from one step to the next as they progress through the process.

2.4 Agile

Agile project management methodologies developed as a response to the rigidity of the Waterfall model and were inspired by the speed and flexibility of the Lean methods. They're intentionally iterative and collaborative, and place emphasis on creating good products and/or outcomes for customers and clients.

Agile is not only a methodology but a set of principles that underlie several methodologies, which sprung from the need for adaptive project management. Using the same software development example again, Core Agile principles include:

2.4.1 Individuals and interactions over processes and tools

2.4.2 Working software over comprehensive documentation

2.4.3 Customer collaboration over contract negotiation

2.4.4 Responding to change over following a plan

These principles allow for quick iterations that increase productivity and efficiency and can address changing requirements throughout the project lifecycle. However, eliminating documentation and relying on individual interaction can impede scalability and continuity across teams, especially within larger organisations. Therefore, Agile is best for small teams where developers and stakeholders are on the same page about business needs and constraints.

There are several Agile frameworks people use to implement this set of principles. The most common is the Scrum framework. Let's look at the most popular Agile frameworks.

2.5 Scrum

Designed for small teams, a Scrum framework guides a simple process of communication, planning, execution and feedback.

Scrum teams work in 'sprints' of two to four weeks. The team first plans the goals of the sprint and agrees on deliverables to complete in that period. The team then meets daily for a 15-minute 'scrum' or 'stand up', where each team member shares progress and impediments toward the goal.

At the end of each sprint, the team holds a more extensive meeting for sprint review to present completed work and get feedback and suggestions for future work.

2.6 Scrumban

Scrumban is a hybrid of Scrum and Kanban methods. It follows a scrum workflow and visualises work on a Kanban board with three columns:

To Do	Doing	Done

To avoid being overwhelmed, team members pull tasks from 'To Do' as they have bandwidth, rather than committing to timeboxed sprints.

Practitioners of Scrumban keep a daily standup but do not necessarily hold an 'end-of-sprint' review. Instead, they conduct planning and review on an 'as-needed' basis as tasks are completed.

2.7 Extreme Programming (XP)

Focused squarely on software development, XP project management emphasizes communication, simplicity, feedback and testing. Again, using software development as an example, it relies on 'feedback loops', where coding is happening continuously, without waiting for comprehensive design or planning upfront, and iterations follow feedback from testing.

The method is best suited for teams where programmers are in sync with stakeholders because the lack of formal management and documentation raises the risk for miscommunication and never ending changes. However, this framework can create scope creep and it can become costly over time.

2.8 PRINCE2

PRINCE2 stands for 'Projects in Controlled Environments' and was created by the United Kingdom government in 1996 as a version of the Waterfall project management methodology. PRINCE2 is based on seven principles that begin with a clear business case and include stakeholder management, initiation, planning, control, progress monitoring and acceptance criteria.

There are also seven process steps of PRINCE2, which include:

2.8.1 Starting a project: Start the project by submitting a project plan that defines the business case.

2.8.2 Directing a project: The project board reviews the plan and decides to move forward.

2.8.3 Initiating a project: The board chooses a project manager who creates a more detailed project plan.

2.8.4 Controlling a project: The project manager breaks down the project into more manageable stages.

2.8.5 Managing product delivery: The project manager oversees the project's progress and assesses quality standards.

2.8.6 Managing stage boundaries: Project board holds a review at the end of each stage before moving forward.

2.8.7 Closing a project: The project manager completes the project and creates the final report.

PRINCE2 is a well-structured and proven methodology that's widely used. It's also considered more flexible than the traditional Waterfall method.

However, PRINCE2 can be time-consuming with a lot of processes that can slow down a small project. Therefore, it's best for more complex projects where quality standards are high.

2.9 Six Sigma

Six Sigma was developed to improve business processes by eliminating any defects or errors in the process. It uses statistical models to continuously improve quality management so the project's outcome is successful. Six Sigma uses the following process to eliminate defects and errors:

2.9.1 Define: Outline the project goals with a project scope or business case.

2.9.2 Measure: Collect data on the current state of the project.

2.9.3 Analyse: Review the data to identify root causes of problems.

2.9.4 Improve: Fix or improve the root cause in the process.

2.9.5 Control: Create safeguards to ensure the issue doesn't persist.

The Six Sigma framework helps improve quality, eliminate waste, increase efficiency and reduce costs.

However, Six Sigma is complex and requires a knowledgeable manager to implement it. For this reason, it's only appropriate for larger organisations who require efficiency gains in existing processes.

2.10 Critical Path Method (CPM)

The critical path method (CPM) is a methodology that identifies the critical tasks within a project, including the dependencies and timelines to completion. It then outlines the longest sequence of critical activities that must be completed to deliver the project on time.

Finding the critical path with the CPM is as follows:

2.10.1 List activities: Break down the project into a series of activities or tasks.

2.10.2 Identify dependencies: Identify the activities that are dependent on each other.

2.10.3 Build network diagram: Create a flow chart displaying all the activities.

2.10.4 Estimate the duration: Estimate the duration of each activity.

2.10.5 Determine the critical path: Calculate the critical path by determining the sequence of activities with the longest duration.

2.10.6 Determine your slack: Calculate how much a task can be delayed without impacting the project.

The Critical Path method is great because it identifies a specific duration of time for each task. It even tells you how much allotted time you can go over for each task. This helps you manage project timelines and spot dependencies as you complete tasks. However, the methodology can be tough to manage and is therefore best for complex tasks with a lot of dependencies.

2.11 Critical Chain Project Management (CCPM)

Critical chain project management (CCPM) methodology is similar to the critical path method, however, CCPM focuses on the resources required to complete a project rather than time. It assumes that resources are the project's limiting factor and therefore stresses efficient resource utilisation.

2.12 CCPM typically follows this process:

2.13 Identify the critical path: Identify the critical activities required to complete a project using the critical path method.

2.14 Determine required resources: Estimate the resources required to complete the project by assigning resources to each task on the chain.

2.15 Include buffers: Build time and resource buffers into the estimates to help avoid any bottlenecks.

CCPM bases its measure of success on how seldom the buffers are used. If the project manager is not tapping into the buffer of resources, it is usually a sign that the process are running efficiently. CCPM saves time and money on a project by efficiently allocating resources. However, it can be complex to manage and should be used when resources are the limiting factor of a project.

3 How IWPS Chooses the Correct Project Management Methodology

With so many project management methodologies available, which one does IWPS choose.? The best way to decide this is to assess factors, such as the budget, the team, the project complexity, the required flexibility, its timeline, risk and stakeholder collaboration.

Considerations to make the best decision and choice possible:

3.1 Budget:
The size of the budget will dictate how closely we have to manage it as well as how much we can afford to implement and manage a complex methodology.

3.2 Team:
Assess the size and skill set of our team. Do we have anyone sufficiently schooled in Scrum.? Leveraging the skill set of our team increases our chances of success.

3.3 Complexity:
Some methodologies are good for simple projects while others are better for complex ones. Choosing the methodology that best fits the complexity of the project.

3.4 Flexibility:
How flexible or rigid does the project process have to be.? More rigid processes, such as the Waterfall method, are good when there are few unknowns, but flexible processes, such as Agile, are better when changes have to be made quickly.

3.5 Timeline:
The project timeline will help determine which methodology to use. Is it more important to finish quickly or spend time on a high-quality result.?

3.6 Risk:
Projects with higher risk often use a more rigid methodology, such as the Waterfall method, while projects with less risk use a more flexible approach.

3.7 Collaboration:
How much feedback and communication does the project need from stakeholders.? If consistent collaboration is required, then an Agile methodology is best for the project.

As is evident here, there are many factors to consider when choosing a project management methodology. It may be ideal to test a few out or even blend a few together to find an approach that best suits the project's specific needs. Ultimately, IWPS will use that one that best helps us manage projects successfully.

4 Final Comment

Project management methodologies are the guiding principles that project managers and team leaders use to manage projects successfully. When combined with frameworks, they offer processes and tools to help plan, execute and manage a project.

5 FAQ

Some of the common questions asked by clients unfamiliar with project management styled organisations and the approach of their management methodologies.

5.1 What is project management methodology.?

A project management methodology is a set of principles, values and processes that determine how a team will complete a project. It dictates factors such as level of planning, design and documentation; methods of communication within and outside of the project team, timelines and modes of assessment.

5.2 What is the best project management methodology.?

Which model and method will work best for a projects depends on the unique characteristics of the team and the project. Consider typical methods in the industry, the team's competencies and the project's complexity to choose the best methodology.

5.3 What are project life cycle models.?

A project's lifecycle is the full span of a project through each phase of the process, from planning through delivery. Project lifecycle models are various project planning methodologies that dictate what happens in each phase and how a team moves through the process to complete the project.

5.4 What should every project manager know.?

Project managers should be familiar with the common project management methods and tools, including Agile and Waterfall. The project manager should also have necessary soft skills needed for leadership, communication, time management, adaptation and critical thinking on projects.

We trust this narrative illustrates the processes which we apply to the various methodologies of our project management at Integer Wealth Professional Services.

Below is the narrative which describes the project management onboarding process of a client.

Onboarding Process of Client for Project Management Services

The onboarding process of a client begins with the evaluation process and leads into the following steps as follows:

1. **Client approaches IWPS**
   High level assessment (Part 1) – Identify client single or multiple project requirements
   - Jurisdiction
   - Industry sector
   - Project detail i.e. what is the project
   - Duration

2. **Issue quotation in accordance with IWG Fee Schedule**

3. **Issue contractual 'Terms of Business' agreement to client with Fee Schedule attached.***

4. **Issue invoice according to quotation**

5. **High level assessment (Part 2) - Finance Risk Assessment, high level evaluation of projects feasibility**
   - Financial projection
   - Return on Investment
   - Type of funding i.e. debt, investment etc.
   - Profit assessment

6. **Resource Allocation**

7. **Resources allocated with reserves appointed and deposits paid to required service providers.**

8. **Project Manager Appointment**

9. **Scope of Project Developed and issued for reference to stakeholders and participants.**

10. **Timeline Defined**

11. **Project Management Functions Begin**

***** Please see Fee Schedule attached separate to this document