04/04/2022

Solution-Tech

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**Introduction:**

Profound Plumbing Solutions (PPS) sought and recruited the IT business Solution-Tech to ensure the digitization of all data and the establishment of a network to centrally share data and resources, as well as to upgrade the system to handle all client details and information.

Prior human and material resources will still be necessary to effectively accomplish this implementation, but to build an efficient plan, stakeholders, budget, and risk must all be considered to achieve all expected requirements: Local servers, digital files, websites, and client data are all being tracked.

**Project Management:**

A project is distinguished by the development of a team to carry out certain duties to reach a defined result so, each of the following steps must be followed carefully:

* Complex
* Scoped out by objectives and scopes
* Unique
* Temporary
* Risk factors
* Demonstrate the three constraints

**Project management lifecycle phases:**

The phases of a lifecycle of the project depict the progression of how tools, knowledge, processes, and talents are applied to accomplish a goal. There are four steps to the project management process:

**1. Initiating**

During the first step, the topic will be defined. You'll decide on the project's objectives, scope, and finances, including which team members are needed. Clarifying what stakeholders want from the project, and what the project seeks to achieve (and why), will offer clear direction to the project and team.

In the start phase, the following tools and documents may be used:

• **Project proposal:** A project proposal specifies a project and contains important dates, needs, and objectives.

• **Project board:** This is a formal document that outlines the project and the key details needed to achieve its objectives. Possible risks, rewards, limits, and important stakeholders are all examples of potential hazards.

• **RACI diagram:** A RACI chart is a diagram that depicts the tasks and functions of project team members.

### 2. Planning

Budgets, schedules, and milestones will be established during the planning phase, as will supplies and relevant papers.

You can utilise the following tools at this phase:

**• Gantt chart:** A horizontally bar chart that shows members which tasks must be performed in what sequence and how long each is projected to take.

• **Risk register:** A chart which includes project-related hazards, as well as their frequency, potential impact, riskiness, and measures to mitigate.

### 3. Task completion and execution

Executing a project entail following through on your strategy and keeping the players on track. In general, this comprises monitoring and assessing progress, regulating quality, reducing risk, budgeting, and using data to impact decisions.

You could use the following tools:

• **Change requests** are papers that are used to suggest modifications to the scope or goals of a project.

• **Burndown graph**: This chart deconstructs jobs at the granular level and visualises the period remaining.

### 4. Close projects

In the final phase of the project cycle, you'll wind up project activities, give over the finished good or service to its owner, and assess what worked and what didn't. It will also provide you with an opportunity to recognise your achievements.

The following tools are utilised in the closure phase:

**• Impact report:** This report gathers several metrics that demonstrate whether your work made a significant difference and is provided to your stakeholders.

• **Project closeout statement:** A project closeout report summarises your project's successes and identifies significant learnings for project plan managers to refer to.

(Coursera, Jan 27, 2022)

**Project management triangle:**

The most important aspects of a project are its time, scope, and cost constraints. These elements can be utilized to improve the project's success. The project cost and timeframe are two easily trackable indicators, and the results make it straightforward to detect and avoid difficulties. (Team Asana, Jun 4, 2021)

Diagram

Description automatically generated

**Business and needs:**

To ensure long-term sustainability, a corporation must meet the demands of the market. The market is always changing, and businesses must adapt as well.

That is why Solution-Tech chosen to invest in the digitization of its file to meet the demands of its customers, extend its services to a bigger market, and improve the customer experience. As a result of these requirements, a project is proposed in which piece of equipment and technology are needed to meet the deadline.

The two figures below demonstrate two scenarios: the very first depicts Profound Plumbing Solutions' continuing usage of the old system, whereas the second depicts Profound Plumbing Solutions' improvement with the new system.

**Project management and methods:**

Often, stakeholders are unaware of what they require, hence two strategies for identifying requirements have been established for this project:

## **Waterfall methodology:**

* ***Advantages:***

**• Usability**

**• Structure: The Waterfall method's rigidity is a disadvantage, but it may also be a benefit.**

**• Documentation: The Waterfall model is highly dependent on documentation due to the emphasis on assembling and recognizing requirements.**

* ***Disadvantages:***

## **• Greater risk:** Because of the rigidity of this process, if you discover an error or wish to alter something, you must effectively restart the project from scratch.

## **• Front-heavy:** The Waterfall technique is strongly reliant on your ability to accurately identify and analyse requirements.

## **Lean methodology:**

* ***Advantages:***

**• Shorter project completion times:** When a project is completed sooner, the client receives more value at a cheaper cost.

**• Quality improvement:** Emphasis is placed on details to reduce errors and the need for revisions.

**• A culture of improvement**: Project Managers that use PLM are always engaging with their teams about how to base on the relevant and improve productivity.

* ***Disadvantages:***

**• Inventory may be jeopardised:** To save carrying costs, lean businesses keep stock levels low, leaving them exposed to supply chain concerns.

**• Expensive start-up costs:** It may be costly and time-consuming to update outdated systems and implement more efficient equipment, software, and procedures.

**• Requires a cultural shift:** Teams may be resistive to training and hesitant to implement lean techniques. (Esther Cohen, Jul 14, 2019)

**Stakeholders of the project:**

There is distinction between internal and external stakeholders. Internal stakeholders include individuals who have a direct attention in the concept, including the sponsor and project crew. External stakeholders include customers, competitors, and suppliers, to name a few.

The most important aspect of your job as a project director is recognizing stakeholders' requests. This will allow you to properly perform your program management by guaranteeing every stakeholder is properly updated all through the operation and satisfied with the outcome.

Best ways to establish balance between the stakeholders:

* + Throughout the project, include stakeholders.
  + On the deliverables, all parties must agree.
  + Specify the mechanisms that regulate change.
  + Good communication skills are essential.
  + Try to imagine yourself in their shoes.

As a project manager, you must be aware of many risks and mistakes that can be done but, the most crucial are:

* Not establishing strong aims or project scope
* Projects and tasks were not prioritized
* Failure to properly communicate

(Fahad Usmani, Sep 2, 2021)

**Software estimation**

We were requested to organize the whole process of establishing the new system, from equipment and hardware procurement to information deployment, because Profound Plumbing Solutions (PPS) has an IT team.

Estimating software, it is essential since it takes account of all the aspects, beginning with time and cost predictions. Each is significant for different reasons.

(Jessica Everitt, Oct 19, 2020)

## **Project Estimation Techniques:**

Using the following techniques, I think any project manager can improve their estimation accuracy.

### *1*. *Estimate from the Top-Down*

### This method is widely used when additional information about the project's scope is obtained, wherein increased chunks at the product or design level are estimated and then disassembled into smaller pieces or work-packets as information is delivered.

### .*2*. *Bottom-Up Calculation*

### When the needs are known at a discrete level, this technique is used to estimate the entire project by taking the average the smaller workpieces.

### *3. Parametric Estimate*

### This strategy employs quantitative characteristics that are unrelated to project operations. In a software project, for example, the effort necessary to build a task packet is approximated as lines of code from the variable.

(Simplilearn, Mar 7, 2022)

**Project-related risks:**

Identification, assessment, mitigation, and reporting are the five processes in risk management, which needs to be addressed.

**1. Identification:** Examine the workflow and processes. Create a list of probable risks and their causes.

**2. Evaluation**: Determine the extent and probability of the threats.

**3. Mitigation:** Select the risk and the applicable risk management solutions. Decide on your main priorities.

**4. Monitoring**: Define who will oversee certain processes and procedures, as well as how they will be monitored.

**5. Reporting:** Evaluate the process and distribute it with stakeholders.

(Lucid Content Team, Feb 21, 2020)

**Conclusion:**

As a conclusion, in my humble opinion every project is distinct and as project manager, you must be able to understand the surrounding circumstances and approach the project's stages with a certain amount of flexibility. Change is unavoidable and typically results in a cost, time, or quality compromise; but, with appropriate leadership abilities and early management measures, it is feasible to shift resources on time.

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