Risk Management Plan

Risk management is one of the main tasks of project managers. It focuses on anticipating the risks because of which the whole schedule or quality of the project can suffer. The primary advantage of creating a risk management plan is to contain and mitigate threats to project success.  Firstly, we need to identify and plan, and then be ready to act when a risk arises—drawing upon the experience and knowledge of the entire team to minimize the impact to the project.

The risk management process has four stages:

Stage 1: **Risk identification**

In this stage the possible project, product and business risks are identified. Hence, to figure out “What can go wrong here?  and Do you see any risks?”

 Stage 2: **Risk analysis**

In this stage, the probability and consequences of risks are analyzed. Also, to identify the urgent risks that needs to be given a priority.

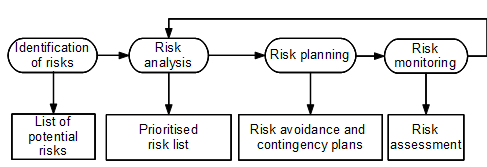
 Stage 3: **Risk planning**.

The objective of risk planning stage is to avoid the risks or minimize its effects.

 Stage 4:**Risk monitoring**

In this risk monitoring stage, the identified risks are continuously assessed, and the avoidance strategies are revised as more information becomes available about the risk till, we reach this stage.

Here is a diagram depicting the flow of risk management process.



1. **Risk identification**

|  |  |
| --- | --- |
| **Risk type** | **Possible risks** |
| Requirements | Changes to project requirements and software which require development of additional features. For e.g.: The customer wants to add/remove any feature which require rework. |
| Estimation | -The time required to develop the project is underestimated.  -The rate of defect repair is underestimated |
| Tools | The database used is not able to store substantial number of entries. Or in general the database performance. |
| People | In case anyone from the team is not feeling well or unavailable at certain times. |
| Technology | -Selected software component is defective.  -Integration of modules turns out to be too much of a challenge within the project performance |

1. **Risk analysis**

The Project Team assess all risks in the Risk Register and identify Probability and Impact. Here, Impact refers to a level of effect that risk will have on the project whereas probability refers to a level of likelihood of occurrence of the risk.

|  |  |  |
| --- | --- | --- |
| Risk | Probability | Effects |
| The customer suggest changes and asks to include additional features | High | Catastrophic |
| One of the team members who is handling a key point of the project is unavailable or not well for some time | High | Serious |
| The database used has a lower performance as expected. | Medium | Serious |
| Development time for a software component is underestimated. | High | Serious |

Impact Interpretation table for risk analysis:

|  |  |  |
| --- | --- | --- |
| Rating | | Interpretation |
| High | 10 | Project Failure |
| 9 | Requirements not met, delay or over budget by 40% |
| 8 | Requirements not met, delay or over budget by 30-40% |
| 7 | Requirements not met, delay or over budget by 20-30% |
| Medium | 6 | Requirements not met, delay or over budget by 10% |
| 5 | Slightly over budget |
| 4 | Significant reduction of reserves (time or cost) |
| Low | 3 | Medium reduction of reserves (time or cost) |
| 2 | Small reduction of reserves (time or cost) |
| 1 | No impact |

1. **Risk planning**

In risk planning we focus on how we can solve the above-mentioned risks. It is mostly based on the judgement and experience of the project manager. There is a three-step approach that is followed in risk planning phase.

In this stage we work on the risk according to the priority that we have defined in the analysis phase.

1. Avoidance strategies. Following this approach means to figure out the probability that the risk raised will be reduced. Also, we need to know if it is a positive or negative risk or is it something that could be exploited for the betterment of the project?
2. Minimization strategies. The objective is to produce a solution to reduce the effect of the risk. For example, a risk minimization strategy is that for team member not available is to give the work to some other member from the same background to save time and enhance productivity.
3. Contingency plans. These are the strategies used when risk arises. For each major risk identified, a plan is created to mitigate it. We need to create a strategy or produce a contingency plan.

Hence, we have communications with the risk owner and altogether can decide on which plan is supposed to be implemented to solve the issue.

1. **Risk monitoring**

This is the final stage of the risk management. In addition to the risks that have been raised, there is always a probability of new risks bound to surface. So, the purpose of risk monitoring is to constantly identify the risks and decide whether its probability and effects have changed. Usually this is not monitored directly, and some other factors should be monitored to detect the changes. It is not feasible to predict what will go wrong, but it is always better to have a system in place when issues arise that will certainly improve the chances of success. Additionally, the practice of anticipating risk will only encourage your team to remain flexible and unafraid to try new things.