Project Management
MGTE 31212

MANAGING RISKS IN DESIGN AND DEVELOPMENT PROJECT : EVENZA ONLINE EVENT MANAGEMENT PLATFORM

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CHAPTER 1

1 INTRODUCTION

Even the most carefully planned project can run into trouble. No matter how well they planned, a project can always encounter unexpected problems. Team members get sick or quit, resources that were depending on turn out to be unavailable etc.. We can use risk planning to identify potential problems that could cause trouble for the project, analyze how likely they are to occur, take action to prevent the risks which can be avoided, and minimize the ones that we can't.

A risk is any uncertain event or condition that might affect the project. Not all risks are negative.There are no guarantees on any project. Even the simplest activity can turn into unexpected problems. Anything that might occur to change the outcome of a project activity, we call that a risk. A risk can be an event or it can be a condition (like an important part being unavailable). Either way, it's something that may or may not happen …but if it does, then it will force the team to work on the project.

When I'm planning my design and development project, Evenza, risks are still uncertain: they haven't happened yet. There are four basic strategies I could follow to handle a risk.

1. Avoid: If I can prevent it from happening, it definitely won't ruin the project. The easiest way to avoid this risk is to walk away from the cliff, but that may not be an option on this project.
2. Mitigate: If the risk cannot be avoided, then it can be mitigated. This means taking some sort of action that will cause it to do as little damage to the project as possible.
3. Transfer: One effective way to deal with a risk is to pay someone else to accept it for me. The most common way to do this is to buy insurance etc.
4. Accept: When it can't be avoided, mitigated, or transfered a risk, then I have to accept it. But even when the risk is accepted, I have first looked at the alternatives to manage it.

By the time a risk actually occurs on the project, it's too late to do anything about it. That's why a plan for risks is required from the beginning and keep coming back to do more planning throughout the project.

The risk management plan tells how we are going to handle risk in the project. It documents how we assess the risk, who is responsible for doing it, and how often we'll do risk planning

CHAPTER 2

2 RISK IDENTIFICATION

Managing risks on projects is a process that includes risk assessment and a mitigation strategy for those risks. *Risk assessment* includes both the identification of potential risk and the evaluation of the potential impact of the risk. A risk mitigation plan is designed to eliminate or minimize the impact of the risk events—occurrences that have a negative impact on the project

A more disciplined process involves using checklists of potential risks and evaluating the likelihood that those events might happen on the project. For some projects we develop risk checklists based on experience from past projects. These checklists can be helpful to the project manager and project team in identifying both specific risks on the checklist and expanding the thinking of the team. The past experience of the project team, project experience within the company, and experts in the industry can be valuable resources for identifying potential risk on a project.

Identifying the sources of risk by category was the method for exploring potential risk on my project, Evenza, event management and resourcing platform. Some examples of categories for potential risks include the following:

- Technical
- Cost
- Schedule
- Client
- Financial

Work breakdown structure (WBS) framework was used for developing a risk breakdown structure (RBS). A risk breakdown structure organizes the risks that have been identified into categories using a table with increasing levels of detail to the right.

Task	**Risk**
Software Frontend Development	● User Interfaces may not acceptable by the client ● Event planning process through the system may not understandable ● Required features cannot be integrated
Software backend: business logic development	● Business feasibility, policies may not be addressed ● Technology stack may not sufficient for future developments
Investing and funding	● Budget may exceed the planned limits ● Stakeholders may face financial issues

The result is a clearer understanding of where risks are most concentrated. This approach helps the project team identify known risks, but can be restrictive and less creative in identifying unknown risks and risks not easily found inside the WBS.

CHAPTER 3

3 RISK EVALUATION

After the potential risks have been identified, the next step is to evaluate each risk based on the probability that a risk event will occur and the potential loss associated with it. Not all risks are equal. Some risk events are more likely to happen than others, and the cost of a risk can vary greatly. Evaluating the risk for probability of occurrence and the severity or the potential loss to the project is the next step in the risk management process.

Having criteria to determine high-impact risks can help narrow the focus on a few critical risks that require mitigation. Risk evaluation is about developing an understanding of which potential risks have the greatest possibility of occurring and can have the greatest negative impact on the project. These become the critical few.

There is a positive correlation—both increase or decrease together—between project risk and project complexity. A project with new and emerging technology will have a high-complexity rating and a correspondingly high risk. The project management team will assign the appropriate resources to the technology managers to ensure the accomplishment of project goals. The more complex the technology, the more resources the technology manager typically needs to meet project goals, and each of those resources could face unexpected problems.

CHAPTER 4

4 RISK MITIGATION

After the risk has been identified and evaluated, the next task would be developing a risk mitigation plan, which is a plan to reduce the impact of an unexpected event. The project mitigates risks in various ways:

- Risk avoidance
- Risk sharing
- Risk reduction
- Risk transfer

Each of these mitigation techniques can be an effective tool in reducing individual risks and the risk profile of the project. The risk mitigation plan captures the risk mitigation approach for each identified risk event and the actions that I have to take to reduce or eliminate the risk.

Risk avoidance usually involves developing an alternative strategy that has a higher probability of success but usually at a higher cost associated with accomplishing a project task. A common risk avoidance technique is to use proven and existing technologies rather than adopt new techniques, even though the new techniques may show promise of better performance or lower costs. In my project to avoid the risk which may occur due to un-accepted user interfaces or inappropriate user experience, I can come up with wireframing at the early stages and then conduct usability testings and acceptance via clients and then to finalize a wireframe then proceed with development. To mitigate the risk of the current technology which may insufficient for future development and advanced features, I can write more extensible code, use design principles and design patterns where, a new technology stack or advancements can be easily adopted or the logic can be migrated to a new technology stach, in the development phase.

Risk sharing involves partnering with others to share responsibility for the risky activities. Many organizations that work on international projects will reduce political, legal, labour, and other risk types associated with international projects by developing a joint venture with a company located in that country. Partnering with different stakeholders to share the risk associated with a portion of the project is advantageous. If a risk event does occur, and has to be accepted then the lost will be shared among all the partnering stakeholders.

Risk transfer is a risk reduction method that shifts the risk from the project to another party. The purchase of insurance on certain items is a risk-transfer method. The risk is transferred from the project to the insurance company. A construction project in the Caribbean may purchase hurricane insurance that would cover the cost of a hurricane damaging the construction site. The purchase of insurance is usually in areas outside the control of the project team. Weather, political unrest, and labour strikes are examples of events that can significantly impact the project and that are outside the control of the project team.

References

Parker, D., & Mobey, A. (2004). Action Research to Explore Perceptions of Risk in Project Management. *International Journal of Productivity and Performance Management 53(*1), 18–32.