



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Master

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Course Code

(PMG510)

Project Risk Management

Dialysis Treatment Project

Risk Identification and Analysis

Introduction:

Dialysis treatment project is a project about creating a mobile application that act as a smart solution for kidney failure patients to allocate nearest hospital to dialysis treatments and make an appointment. The project is intended to create a mobile application that can be used with kidney failure patient or their relatives and doctors. And it will be easy to patients to make an appointment for dialysis treatment without worrying especially the one in rural areas or who live far away from hospitals. Also, patients can get supported with their diagnosis, treatment decisions and care.

As projects become increasingly dynamic, organizations need the ability to manage the uncertainty, or risk, that come along with those changes. Risk management is the practice of identifying, evaluating, and preventing or mitigating risks to a project that have the potential to impact the desired outcomes.

In this report, I will identify any possible barriers that could impact the project during its initiation phase. I will start by looking at my project objectives and figuring out what the threats to those objectives are, and what you I do to address them from the beginning. Project risk can be defined as "...a future event that may or may not happen which, if it does happen, will have some impact on the objectives of the project. It could be positive—an opportunity, or negative—a threat." (O'Connor, 2020)

Potential risks:

Project risks occur when deliverables are hit with unexpected events, most the time putting your project deadline at risk. Project complications are not anything new, but how you handle these roadblocks could determine if your project succeeds or fails. Here are some of the risks that could threaten my project timeline:

1. Scope Risks

Scope risks are tasks that endanger project objectives, deliverables, or timeline. That's why I must create consistent concrete goals and task dates for each phase and team member working on a given project. This will ensure my team doesn't try and add additional tasks or take up any extra free time on tasks for any given project.

2. Cost Risks

This type of risk shows the biggest threat to businesses and their financials. Staying within budget is crucial for business owners to make a sufficient profit of their client's projects while still making them happy.

To avoid going into the red, I have my team stagger their work by moving non-essential tasks to different weeks, months, or years to best suit my businesses project focus. Along with that, I stay in touch with my expenses by tracking them on an app or spreadsheet to double-check my project's finances are still in the green.

3. Time Risks

To avoid this risk, I must wrap up the project sooner rather than later. That way, if something were to take a turn for the worse on a deadline, I was allocated enough time to take control and get it back on track.

4. Technology Risks

Technology can get confusing and frustrating at times. Studies even show that only 30% of IT project implementations are successful. I keep my project in the green by scheduling extra time to brace myself for implementation delays.

5. Miscellaneous Risks

There are many different things that could happen through the pipeline of any project conducted. Whether that be natural disasters or legal risks, always take extra precautions with a disaster recovery plan. (montgomery, 2020)

Risk management strategies:

In the world of risk management, there are four main strategies:

1. Avoid the risk.

2. Reduce the risk.
3. Transfer risk.
4. Accept risk.

Literature Review:

Project Risk Management

Project risk as it was mentioned in (Eldash, 2012) is an uncertain event or condition that, if it occurs, influences at least one project objective. Objectives can include scope, schedule, cost, and quality. A risk may have one or more causes and, if it occurs, it may have one or more impacts. A cause may be a requirement, assumption, constraint, or condition that creates the possibility of negative or positive outcome.

Dealing with risks and opportunities professionally is becoming one of the key success factors in business. Dealing with risks and opportunities professionally is becoming one of the key success factors in business. (sempebwa, 2013) showed that for every risk impact category, the impact assessment should include consideration of the following areas of impact also which are: cost, scope, schedule, and performance.

Methodology:

Risk impact:

- High- Catastrophic (Rating A- 100)
- Medium- Critical (Rating B- 50)
- Low- Marginal (Rating C- 10)

It identifies the timeframe for this risk to effect it. The following is classified as one:

Timeframe	Description
Near	Now- until one month
Mid	Next 2-6 months
Far	>6 months

Impact-Probability Matrix:

Impact	Probability			
	High	Medium high	Medium low	Low

	$80\% \leq x \leq 100\%$	$60\% \leq x \leq 80\%$	$30\% \leq x \leq 60\%$	$0\% \leq x \leq 30\%$
A= high	(Exposure very high) (score 100)	(Exposure very high) (score 80)	(Exposure high) (score 60)	(Exposure moderate) (score 30)
B= medium	(Exposure high) (score 50)	(Exposure moderate) (score 40)	(Exposure moderate) (score 30)	(Exposure low) (score 15)
C= Low	(Exposure low) (score 10)	(Exposure low) (score 8)	(Exposure low) (score 6)	(Exposure low) (score 3)

Examples of risk classification:

Risk Event	Probability	Impact Rating	score
improper use of new technology most often leads directly to project failure	20%	C	30
User requirements disruptions often lead to one or more critical failures of a poorly planned software	40%	B	60
Taking the wrong direction with a platform, component, or architecture can have disastrous consequences.	90%	A	100
total			190

Risk analysis for the selected risks:

- New, unproven technologies. Most software projects entail the use of new technologies. Ever-changing tools, techniques, protocols, standards, and development systems increase the probability that technology risks will arise in virtually any substantial software engineering effort. Training and knowledge are of critical importance.
- User and functional requirements. Software requirements capture all user needs with respect to the software system features, functions, and quality of service. Too often, the process of requirements definition is lengthy, tedious, and complex. Moreover, requirements usually change with discovery, prototyping,

and integration activities. Change in elemental requirements will likely propagate throughout the entire project, and modifications to user requirements might not translate to functional requirements.

- Application and system architecture. As with the technological risks, it is vital that the team includes experts who understand the architecture and have the capability to make sound design choices.

Specific risk response strategies to take:

Monitoring includes:

- Publish project status reports and include risk management issues
- Revise risk plans according to any major changes in project schedule
- Review and reprioritize risks, eliminating those with lowest probability
- Brainstorm on potentially new risks after changes to project schedule or scope
(Risk Management in Software Development and Software Engineering Projects, n.d.)

EMV Calculation:

Risk	Risk (p)	Probability	Cost Impact (IC)	Risk Contingency (P*IC)
A	0.2		5000\$	1000\$
B	0.4		7000\$	2800\$
C	0.9		10000\$	9000.9\$

Results and Discussion:

Risk management is an extensive discipline, and I have only given an overview here about my project. At the end of this report, I concluded that there are best practices for managing risk on my software development project such as: Using checklists, comparing with similar previous projects, Prioritizing risks, ranking each according to the severity of exposure.

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