



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

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Student Name	Samman Akram Aljohani	اسم الطالب
Students I.D	2021200731	الرقم الجامعي

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Project Risk Management

Risk Identification and Analysis

Introduction

The management of project costs, complexity and risks remains a problem for many organizations. Project risk management has become a major sub-discipline that focuses on the identification, analysis and development of strategies to quickly and effectively respond to project risk. The Project Management Body of Knowledge (PMBOK®) Guide (2004) defines project risk as an unpredictable occurrence or situation that has a positive or negative impact on the project goals if it happens.

A major starting point for understanding risk is the PMBOK® Guide. First, project risk arises from uncertainty. This uncertainty comes from the attempt, based on forecasts, assumptions and limited data, to predict the future. If the project risk has an adverse effect due to unforeseen issues or challenges, management should also concentrate on positive incidents or opportunities. Project risk management Thus, it is crucial to understand what project stakeholders are and how they can affect the project beyond its aims. It is also critical that project stakeholders understand not just the essence of the risks involved in the project but also how they engage and influence other aspects of the project throughout the life of the project.

The risk management of projects also offers an early warning mechanism to fix or overcome pending issues. Although there is some negative connotation of risk, project stakeholders should be careful to recognize opportunities. While a lot of uncertainty involves risks, we should remember that uncertainty still exists when pursuing opportunities. Unfortunately, many projects do not adopt a systematic approach to risk management. When many organizations are not able to prepare for the unexpected, they are in a state of permanent crisis that is marked by the inability to make successful and timely decisions (Jones, 1994).

The objective of this report is to identify project risks, prepare a risk probability matrix, and carry out an analysis of selected risks. Moreover, this report aims to prepare a risk

management plan that identifies potential risks in the selected stage of the project and identify risk management strategies.

Literature Review

Based on the current literature, the field of project risk management has, apparently, received considerable attention in a number of areas and is a rich research setting. For example, studies based on risk/project performance relationships (Barki, et al., 2001; Jitpaiboon & Kalaian, 2005). Additional research focussed on industries (Adis, 2007), and the outsourcing relationship (Wei & Peach, 2006). Moreover, a number of key concepts in a risk framework should be included. In particular, this will include a sphere of influence (Tiwana & Keil, 2004) and a time factor that takes into account prior and emerging risks (Gemino, et al., 2008).

However, PMI (2004) continues to regard, as a series of processes including risk identification, risk assessment, risk management, monitoring and control and risk response, project risk management and project risk management. Risk identification approaches tend to focus on methods rather than particular tools like brain storming, nominal group techniques, Delphi or mind mapping (Guide, A., 2001). Although diagrams of Ishikawa or Fishbone can be seen as a method for the identification of risks, they appear to be more helpful for the analysis of the specific risk. Other tools like checklists, for three reasons, are of minimal use and appeal:

- Firstly, a checklist will give rise to a false feeling of confidence in all risks.
- Secondly, it would be impossible to attempt to classify any potential risk or to make a checklist unwieldy and subsequently unusable. Or, in turn, if it is too broad or generic, a checklist has a limited value.
- Thirdly, the risk could be inherent in a given project.

The owner's team and project manager must:

- Be in the position to evaluate the impact of the service on expectations, supervise the service, and evaluate the value and efficiency of the service under the conventional risk management model.

- Know more about quality, technical specifications and information, costs and performance.
- The efficiency of the contract requirements may be regulated/inspected.
- Continuous planning, inspection, calculation and details ensure that they always know what takes place and provide a comprehensive cost division for the project.
- Reduce and control the risk.

Methodology

This study is based on the descriptive approach. We are concerned with risk management studies from previous research and literature data collection. During the discussion, we will include more risk management applications for a project. The various employees had a meeting to decide the overall risks to be taken into consideration while the project plan was being completed. All risks are identified, and a countermeasure for each risk has been identified.

Identifying Risk

Risk description	Risk			Prevention and mitigation methods of risk
	P	S	P*S	
1. Deficient CAPEX	3	5	15	Moving from CAPEX to cloud computing – the company can progressively switch to cloud computing for new investment in IT infrastructure. Notice that this does not reflect cash outlays but the financing timing.
2. Detached inner-organizational network	2	3	6	A change from shareholder to shareholder/user – STC should consider adding its customers to its ownership roster. STC should provide its user-ship with incremental ownership on the basis of use and loyalty.
3. Outmoded; an aging board of directors	2	4	8	rely on easy-to-use dashboards, which can be adapted to the needs of individuals, to begin using the information
4. Stiff environment for new strategy formulation	2	4	8	Transform the personality of the corporation into a wealthier profile. It is time to add creativity and invention to its dominant quality list in line with its core values.
5. Sluggish production of new	1	3	3	• Design and development of new communications devices. It can help to

services				improve telecom technology knowledge. An increase in use of infrared technology – The strong infrared technology potential that gives telecommunications industry a great deal of potential.
6. Low collective efficiency due to departmental independence	2	2	4	All the technical reports are sent directly to the technology and operating teams who can then rapidly apply the recommended fixes according to their severity and operability, on a priority basis.

Risk Matrix

LIKELIHOOD				
IMPROBABLE RISK IS UNLIKELY TO OCCUR	LOW - 1 -	MEDIUM - 4 -	MEDIUM - 6 -	HIGH - 10 -
POSSIBLE RISK WILL LIKELY OCCUR	LOW - 2 -	MEDIUM - 5 -	HIGH - 8 -	EXTREME - 11 -
PROBABLE RISK WILL OCCUR	MEDIUM - 3 -	HIGH - 7 -	HIGH - 9 -	EXTREME - 12 -

Risk probability/impact matrix

Impact	Probability		
	High $70 \geq$	Medium $30 \leq X \leq 70$	Low $0 \leq X \leq 30$
High (A)	Exposure High (score 100)	Exposure High (score 70)	Exposure Moderate (score 30)
Medium (B)	Exposure High (score 50)	Exposure Moderate (score 30)	Exposure Low (score 15)
Low (c)	Exposure Low (score 10)	Exposure Low (score 6)	Exposure Low (score 4)

Risk Classification:

Risk	Probability	Impact	EMV
Deficient CAPEX	0.3	5000	1500
Detached inner-organizational network	0.2	3000	600
Outmoded; an aging board of directors	0.2	4000	800
Stiff environment for new strategy formulation	0.2	4000	800
Sluggish production of new services	0.1	3000	300
Low collective efficiency due to departmental independence	0.2	2000	400

EMV overall = 4400

Risk Contingency Plan

- **A=** Measures to mitigate risk and severity that must be defined and enforced as a priority as soon as the project starts.
- **B=** Mitigation measures, in order to minimize probability and severity, and to identify and enforce necessary measures during implementation of the project.
- **C =** Measures of mitigation to minimize probability and seriousness and to identify expense of potential action if funds allow.

Risk description	Grade			Mitigation action
	A	B	C	
Deficient CAPEX				Moving from CAPEX to cloud computing – the company can progressively switch to cloud computing for new investment in IT infrastructure. Notice that this does not reflect cash outlays but the financing timing.
Detached inner-organizational network				A change from shareholder to shareholder/user – STC should consider adding its customers to its ownership roster. STC should provide its user-ship with incremental ownership on the basis of use and loyalty.
Outmoded; an aging board of directors				rely on easy-to-use dashboards, which can be adapted to the needs of individuals, to begin using the information
Stiff environment for new strategy formulation				Transform the personality of the corporation into a wealthier profile. It is time to add creativity and invention to its dominant quality list in line with its core values.
Sluggish production of new services				• Design and development of new communications devices. It can help to improve

			telecom technology knowledge. An increase in use of infrared technology – The strong infrared technology potential that gives telecommunications industry a great deal of potential.
Low collective efficiency due to departmental independence			All the technical reports are sent directly to the technology and operating teams who can then rapidly apply the recommended fixes according to their severity and operability, on a priority basis.

Conclusion

Risk is diminished by finding an experienced person who can precisely identify the initial conditions; enabling an expert to recognize whether the expectations of customers can be achieved; reducing attempts to guide, manage and control the occurrence using an expert and preplanning experts. Risk is maximized by a risk misunderstanding, how risk reduction, along with decision-making, management, management and control strategy, is often minimized.

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Instructor's Name: Eng. Mosaab M. Hamed