

MGTE 31212
PROJECT MANAGEMENT

RISK MANAGEMENT

University Leave Management System

Krishnaananth Jegatheeswaran
IM/2014/035

Department of Industrial Management
Faculty of Science
University of Kelaniya
Sri Lanka
2018

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Risk Management Plan

Project Name: University Leave Management System

Prepared by: Krishnaananth Jegatheeswaran

Project Manager

Approved by:

Project Sponsor

Purpose

This document describes all planned processes and responsibilities to routinely perform risk identification, risk analysis, risk response planning, and risk control activities throughout the life cycle of the project.

INTRODUCTION ABOUT THE PROJECT

The University of Kelaniya is committed to provide high quality education and to conduct high impact research which will contribute significantly to the enhancement of existing knowledge in various fields of Humanities, Medicine, Science, Social Sciences, and Commerce & Management and to the development of the country. Currently University of Kelaniya is using Manual Leave Record Management System.

In the existing Leave Record Management System, University follows manual procedure in which Administrative Branch enters information in a record book. So therefore, lot of records should be maintained in the manual system. This would be a massive amount of records so that this should be minimized and a database should be maintained properly.

For Non-Academic Staffs, when they apply leaves through forms (there are 5 leave types Casual leaves, Vacation leaves, Medical leaves, Maternity leaves, Study leaves), if the leave type is Casual/Vacation and leave count is more than 6 days then Head of Departments of the specific Department or Head of Divisions of the specific Division should approve first and then Staff Assistant and Assistant Registrar should approve it. If the leave type is Casual/Vacation and leave count is less than 6 days then only Head of Departments of the specific Department or Head of Divisions of the specific Division should approve. If the leave type is Medical/Maternity/Study then Registrar should approve it (University Medical Officer should approve if any private medical was submitted). Then Non-Academic Establishment Branch store the leave details in files and monitor the leaves.

For Academic Staffs, when they want to apply for any leave they should send the form and a letter through Head of the Department to Dean and then to Vice-chancellor and finally they have to submit those form and letter to Academic Establishment Branch. Then Academic Establishment Branch will get the approval from Study Leave Committee if the leave type is Study (Overseas)/ Sabbatical otherwise Academic Establishment Branch itself approve them and store the leave information in the particular Academic Staff's file.

This process would be time consuming so that, when there is a system to automatically find the appropriate leave-approving officer and get the approval, it would reduce the workload and time.

Aim is to develop an automated system for the manual leave management system for the staffs of University of Kelaniya. After making the system, the respective persons and authority might use it easily without any errors.

Main objectives are

- ❖ Maintaining accurate reports about the leave
- ❖ To provide information / help for other purposes like pay roll system for the staffs
- ❖ To provide information/ help to the travel and transport system for the official leaves
- ❖ To keep a proper in & out system
- ❖ To increase the efficiency of work
- ❖ Keep an updated database
- ❖ To provide information to relevant officials when needed

Risk Planning Process

Risk Management Planning

To help the project's stakeholders aware of possible threats and be assured that the project team has sufficient and efficient means of risk mitigation.

Risk Identification Process

Here, the potential risk events for the project is being identified.

- Risk of increase of costs over the budget
- Accuracy of data
- Maintaining cost will be high due to licence software
- Delays to required infrastructure
- Security vulnerabilities of the system
- Some activities connected to the manual process not being covered by the scope of the project
- Low user satisfaction
- Creeping user requirements
- Server could be malfunctioning
- Bugs of the API may occur
- Initial planning may not be successful
- Target Market not accepting the product

Risk Analysis

Here, the probability of each risk occurring and the impact of each risk event on the whole project will be discussed. Thereafter, the potential risks will be ranked accordingly.

Risk Impact Table

Risk	Probability 0-100%	Impact 1- 10	P.I. Score	Rank
1.Risk of increase of costs over the budget	75%	8	6	2
2.Accuracy of data	80%	9	7.2	1
3.Maintaining cost will be high due to licence software	60%	7	4.2	3
4.Delays to required infrastructure	50%	5	2.5	8
5.Security vulnerabilities of the system	30%	9	2.7	7
6.Some activities connected to the manual process not being covered by the scope of the project	60%	5	3	6
7.Low user satisfaction	10%	5	0.5	11
8.Creeping user requirements	60%	6	3.6	5
9.Server could be malfunctioning	10%	10	1	10
10. Bugs of the API may occur	10%	4	0.4	12
11.Initial planning may not be successful	25%	5	1.25	9
12.Target Market not accepting the product	50%	8	4	4

Risk Response Planning

Risk	Trigger	Owner	Response	Resource Required
1.Risk of increase of costs over the budget	Overruns cost	Project Manager	Re-evaluate the budget	High financial expertise
2.Accuracy of data	Duplicate data	Project Manager	Create real time update database	High technical expertise
3. Maintaining cost will be high due to licence software	Overruns cost	Project Manager	Re-evaluate the budget	High financial expertise
4.Delays to required infrastructure	Stuck machines	Project Manager	Encouraging buy more computers	Computers
5.Security vulnerabilities of the system	Hacked	Project Manager	Use secure passwords	High technical expertise
6.Some activities connected to the manual process not being covered by the scope of the project	Scope complexity	Project Manager	Create well defined scope	Negotiation with project manager
7.Low user satisfaction	Not satisfied by the system	Project Manager	Usability Testing	System testing engineers
8.Creeping user requirements	Not well define requirements	Project Manager	Holding meetings with project sponsors	Understanding about user requirement
9.Server could be malfunctioning	Website could not be retrieved	Project Manager	Using servers with less malfunctions	Understanding about Servers
10. Bugs of the API may occur	API could not work properly	Project Manager	Re-evaluate API	Understanding about APIs
11.Initial planning may not be successful	Not well planned	Project Manager	Redo the planning properly	High technical expertise
12.Target Market not accepting the product	Not well surveyed before implementing	Project Manager	Taking survey again properly	Understanding about the Target Market

Risk Planning Detail

Methodology

1. Informal direct assessment of risks – experienced judgement
2. Checklists – lists of risks that have happened before or features of a project generally thought to be risky
3. Risk indicator scales – scoring schemes
4. Structured brainstorming and evaluation
5. Probability-Impact calculations
6. Probabilistic modelling of costs, schedules and cash flows.

Risk Roles & Responsibilities

Role	Responsibilities
Project Manager	Write and approve the Risk Management Plan Define the risk management approach Participate in the risk management process Take ownership of risk mitigation, planning, and execution.
Risk Officer	Leading the risk management effort Sponsoring risk identification activities Facilitating communication throughout the process Maintaining the risk register and updating Providing the Project Manager with recommendations and status regarding risk actions.
Executive Sponsor	Providing financial resources and business authority for the project. Provides input to risk mitigation strategies.
Project Sponsor	Ensuring that the needs and accomplishments within the business area are widely known and understood Ensures that the design of the system meets both the functional and non-functional business goals.

Risk Management Activities

The table below contains a list of risk planning related activities to be included in the overall project WBS.

ID	Risk Activity
1.0	Risk Planning
1.1	Define process, reporting, roles, responsibilities, and tools
1.2	Forecast contingency budget for risk management
1.3	Define risk management deliverables
1.4	Complete Risk Management Plan
2.0	Risk Identification
2.1	Brainstorm risks
2.2	Create baseline Risk Register
3.0	Risk Analysis
3.1	Evaluate risk and determine risk rating and prioritization
3.2	Update the Risk Register with results of risk analysis
4.0	Risk Response Planning
4.1	Evaluate risk response alternatives
4.2	Select risk response actions
4.3	Assign responsibilities and schedule risk response actions
4.4	Update the Risk Register with results of risk response planning
5.0	Risk Monitoring and Control
5.1	Conduct ongoing risk reviews
5.2	Take corrective action
5.3	Update the Risk Register

Risk Categories

Category	Sub-category
Technical	Scope Definition/Objective, Requirement Definition, Technical Process, Technology, Technical User/Interfaces, Technology Scaling, Performance, Reliability/Safety/Security, Testing
Management	Project Management, Resources, Communication, Interdependencies
Organizational	Culture, Sponsorship, Business Process, Acceptance, Supportability
Commercial	Contractual Terms and Conditions, Funding/Financial, Vendor Stability, Internal Procurement, Subcontractors, Applicable Laws, Contractor Experience
External	Legislative/Regulatory, Political, Pressure Groups, Weather, Force Majeure

Reporting

In the Risk Policy the Board has established how and when it shall receive information about risks and risk management. The periodic recurring risk reporting is designed to provide reliable, current, complete and timely information to the recipients, reflecting the nature of different risk types as well as market developments. The Board, the ACRC, the CEO and the Group Management Team, as well as other functions that require such information, receive regular reports on the status of risks and risk management.