Cost Management Plan
SurveiRams

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INTRODUCTION

The purpose of the Cost Management Plan for the SurveiRams System project is to ensure that all project-related expenses are managed efficiently throughout its entire duration. The plan outlines the techniques and guidelines that will be employed to gauge, communicate, and regulate project expenses.

Cost management responsibilities:
The Project Manager will be responsible for managing the project's expenses and act as the contact for any cost-related concerns. The Project Leader, on the other hand, will be responsible for supervising project spendings and making sure that it stays within the authorized budget.

Cost change approval:
Authorization from the Project Manager is required prior to implementing any changes in cost. In case the cost modification exceeds 10% of the total project budget, approval from the Project Sponsor must be obtained before executing it.

Cost measurement and reporting:
The project expenses will be evaluated and recorded on a monthly basis, using both the cost performance index (CPI) and the schedule performance index (SPI). Monthly expense reports will be submitted to the Project Sponsor.

Budget format and standards:
The budget will be presented in a simplified and concise format by utilizing a spreadsheet program like Microsoft Excel. The budget will be divided into distinct line items, with each item having a detailed cost estimate. It will be updated once there are any changes, and any changes made will be indicated.

Overall, the objective of the Cost Management Plan for the SurveiRams System project is to ensure that all project-related expenses are effectively monitored and controlled, allowing the project to be completed within the assigned budget. This approach will ensure the project's successful and timely completion.

COST MANAGEMENT APPROACH

The cost management approach for SurveiRams will be based on the following principles:

1. Clear definition of cost - The project team will define all the costs associated with SurveiRams such as hardware, software, development, and manpower costs as well as any other expenses related to the project.
2. Budget development and tracking - OpenProject will be implemented to regularly monitor actual spending against the allocated budget and identify areas for improvement.
3. Cost variance analysis - The project team will analyze and distinguish between the actual cost in the budget and predicted cost estimates to pinpoint reasons for any discrepancies, then initiate remedial measures to align expenses accordingly.
4. Cost management roles and responsibilities - The project team members will define and establish clear roles and responsibilities for cost management.
5. Approval process for changes - Changes to projects or budgets will be approved formally through an established and implemented procedure.
6. Reporting and communication - Regular cost reports will be provided and distributed to the project team, project sponsor, and stakeholders to inform them of the project's financial situation.

By implementing a clear cost management approach in SurveiRams, the project team can ensure that the project stays on budget and meets financial objectives. This can help to minimize the risk of cost overruns and ensure that the project is completed successfully.

MEASURING PROJECT COSTS

For this project, the Earned Value Management tool will be used to measure project costs. Specifically, the Cost Variance (CV), Schedule Variance (SV), Cost Performance Index (CPI), and Schedule Performance Index (SPI) are the metrics to be used to aid in tracking whether the project is over or under budget, or whether the team is on schedule or not.

Table 1. EVM Metrics Formula

Metrics	Formula/Definition
Schedule Variance (SV)	$EV - PV$
Cost Variance (CV)	$EV - AC$

Schedule Performance Index (SPI)	$\dfrac{EV}{PV}$
Cost Performance Index (CPI)	$\dfrac{EV}{AC}$

Table 1 shows the formula to calculate for each metric. SV is the difference between the EV and PV. It will determine whether the project is ahead (SV > 0), right on track (SV = 0), or behind schedule (SV < 0) in a specific timeframe or task. Meanwhile, CV is the difference between EV and AC. This dictates whether the project is under budget (CV > 0), perfectly on budget (CV = 0), or over budget (CV < 0) during a certain period.

On the other hand, CPI is the ratio of the EV to the AC. This will help in checking if the project is cost-effective. If the CPI is:

- less than one (a negative number), then it means that the project is over budget so far
- equal to one (1), then it means that the project is perfectly on budget so far
- more than one (a positive number), then it means that the project is over budget so far

The Schedule Performance Index, which is the ratio of the EV to the PV, is similar to the SV, only in terms of the overall timeline. The aim is to consistently have an SPI that is either very close to 1, or if possible, be a little under 1.

REPORTING FORMAT

Reporting on cost management will be included in the monthly project status report. The Monthly Project Status Report will include a section labeled, "Cost Management". This section will contain the Earned Value Metrics identified in the previous section. All cost variances outside of the thresholds identified in this Cost Management Plan will be reported on including any corrective actions which are planned. Change Requests which are triggered based upon project cost overruns will be identified and tracked in this report.

COST VARIANCE RESPONSE PROCESS

The Control Thresholds for this project is a CPI or SPI of 1, as stated above in Measuring Project Cost.

If the Project Sponsor selects a corrective action option, they may choose from the following:

- Reducing the scope of the project
- Reducing the quality of the project deliverables
- Increasing the budget for the project

- Increasing productivity or efficiency of project team members

The Project Manager will monitor the implementation of the corrective actions and provide regular updates to the Project Sponsor on the status of the project budget. If the project continues to exceed the Control Thresholds, the Project Manager will forward the issue to their Project Adviser for further action.

COST CHANGE CONTROL PROCESS

The cost change control process will include the following steps:

1. Identification of Cost Change: The Project Manager or any team member who identifies and proposes a potential cost change must document and bring it to the attention of the Project Sponsor through a Cost Change Request Form.
2. Analysis of the Cost Change: The project team will analyze the cost change to determine its impact on the project schedule, budget, and overall performance.
3. Approval of the Cost Change: The Project Manager will present an analysis of the cost change to the Project Sponsor and other relevant stakeholders. The Project Sponsor will then approve or reject the cost change based on the analysis provided.
4. Implementation of the Cost Change: Once the cost change is approved, the Project Manager will update the project cost baseline and implement the necessary cost changes to the project plan in accordance with the project schedule and budget.
5. Tracking and Monitoring of the Cost Change: The Project Manager will track and monitor the cost change to ensure that it is implemented effectively and efficiently. The project team will regularly review the progress of the cost change and adjust as necessary.
6. Reporting on the Cost Change: The Project Manager will report on the cost change to the Project Sponsor and other stakeholders. The report will detail the factors contributing to the cost change, its implications for the project timeline, budget, and quality of work, as well as the progress achieved in managing the situation.

The cost change control process is a crucial aspect of managing the SurveiRams ticketing system project's financial aspects. By analyzing and approving cost changes, the project can ensure that it remains within the allocated budget and avoids any unexpected financial challenges. Regular reporting on cost changes will allow the project manager to keep the project sponsor and other key stakeholders informed of any financial updates and ensure transparency throughout the project's lifecycle. By adhering to this cost change control process, the SurveiRams ticketing system project can achieve its objectives and deliver quality results within the specified budget.

PROJECT BUDGET

The budget for this project is detailed below. Costs for this project are presented in various categories:

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SurveiRams Ticketing System				
Budget	PHP 1,502,850.00	Project Duration		9.5 months
Project Cost Elements				
Manpower Cost: Estimate *based on glassdoor*				
Role	Average Salary (monthly)	Number of persons	Number of months	Total Salary
1. Quasar Front-end developer – junior level	PHP 35,000.00	1	4	PHP 140,000.00
2. Back-end developer – junior level	PHP 25,000.00	1	4	PHP 100,000.00
3. Project Manager	PHP 42,250.00	1	9.5	PHP 401,375.00
4. Software Tester	PHP 25,485.00	1	1	PHP 25,485.00
5. Documentation Specialist	PHP 16,000.00	1	9.5	PHP 152,000.00
				Total PHP 818,860.00
Hardware				

Item(s)	Price per Unit	Number of Units	Total Cost
1. Laptops (Lenovo Idea Pad 5 15)	PHP 40,999.00	5	PHP 204,995.00
2. Logitech Mouse (Wireless mouse Logitech M191)	PHP 804.60	5	PHP 4,023.00
3. Keyboard (A4Tech KRS-92 Natural_ A FN Keyboard)	PHP 499.00	5	PHP 2,495.00
4. Printer(Canon	PHP 5,595.00	1	PHP 5,595.00

	Pixma E3370 Inkjet Printer)				
				Total	PHP 217, 108.00

Software

Item(s)	Price per License	Number of Licenses	Number of Months	Total Cost
1. Quasar	*free of use	2		10
2. Github	*free of use	2		10
3. Visual studio	*free of use	2		10
4. Openproject	*free of use	5		10
5. MS Teams Essentials MS 365	PHP 1,126.00	5	10	PHP 11,260.00
			Total	PHP 11,260.00

Recurring Payment

Item(s)	Fee per Month	Number of Months	Total Cost

Item(s)	Price	Number of months	Total Cost
1. Monthly Rent 25 sqm – Better Living Triple Tech bldg.	PHP 20,000.00	10	PHP 200,000.00
2. Electric bill Meralco	PHP 5,000.00	10	PHP 50,000.00
3. Internet bill Flexi Biz 120	PHP 6000.00	10	PHP 60,000.00
		Total	PHP 310,000.00

Onetime Payment

Item(s)	Price	Number of months	Total Cost
1. Internet bill FlexiBiz 120 – install	PHP 5,000.00	1	PHP 50,000.00

ment fee		
	Total	PHP 50,000.00

Contingency Cost			
Item(s)	Price		Total Cost
1. Estimated contingency cost (Total overall costings * 10%)	PHP 140,722.00		PHP 140,722.00

Estimated Total Project Cost	
Grand Total	PHP 1,547,950.8

SPONSOR ACCEPTANCE

Approved by the Project Sponsor:

Date: May 2023

Mr. Jojo F. Castillo
Executive Director, Technical Services

Mr. Jose Manuel Garcia
Campus Architect

APPENDICES

Appendix A: Earned Value Management

PHASE	OVERALL COST	PERCENTAGE OF COMPLETION	BCWS/PV	BCPW/EV	ACWP/AC	CV	SPI	CPI
Initiation	₱311,353.00	100.00%	₱311,353.00	₱292,181.00	₱292,181.00	0	0.93842359	1
Develop a Project Plan	₱199,720.00	23.00%	₱45,935.60	₱45,160.00	₱45,160.00	0	0.983115492	1
Analysis	-	-	-	-	-	-	-	-
Design	-	-	-	-	-	-	-	-
Testing	-	-	-	-	-	-	-	-
Implementation	-	-	-	-	-	-	-	-

Appendix B: Cost Change Request Form

Project Name:	
Requested By:	
Cost Change Description:	
Cost Change Justification:	
Budget Impact:	
Schedule Impact:	
Signature over Printed Name:	Date:

Project Sponsors:

Approved ☐   Rejected ☐

Mr. Jojo F. Castillo   Mr. Jose Manuel V. Garcia
Executive Director, Technical Services   Campus Architect

Date: Date: