Immigration, Refugees and Citizenship Canada (IRCC)

Smart Immigration Assessment and Matching System (SIAMS)

Earned Value Analysis

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Software Requirements Analysis

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1. Introduction

This document is an example of Earned Value analysis the can be performed during the development of SIAMS software.

2. Spreadsheet Screenshot

		Planned Hours		
		Week 1	Week 2	Week 3
Workshop Preparation	Vinay	40	10	0
	Ashique	10	4	0
Identifying Stakeholders	Ashique	30	0	0
System Objectives	Vinay	0	30	40
	Ashique	0	36	40

Hourly Rates	*Vinay*	*$206*		
	Ashique	*$139*		

		Actual Hours Worked		
		Week 1	Week 2	Week 3
Workshop Preparation	Vinay	40	10	
	Ashique	8	1	
Identifying Stakeholders	Ashique	29	0	
System Objectives	Vinay	0	33	
	Ashique	0	40	

		What they entered in their timesheets at the end of the week for "Estimated to Complete"		
		Week 1	Week 2	Week 3
Workshop Preparation	Vinay	10	0	
	Ashique	4	0	
Identifying Stakeholders	Ashique	0	0	
System Objectives	Vinay	75	35	
	Ashique	90	50	

3. Planned Value

Total planned value for the entire project: $41,400

Total planned hours for Vinay = 40+10+30+40 =120 hours
Total planned hours for Ashique = 10+4+30+36+40 =120 hours
Planned Value = Planned hours X Hourly Rate =(120x206) + (120x139) = $41,400

4. Actual Cost

Total actual cost at the end of week 1: $13,383

Actual hours worked at the end of week 1:
Vinay = 40 + 0 = 40
Ashique = 8 + 29 + 0 = 37
Actual Cost = Hours Spent X Hourly Rate = (40x206) + (37x139) = $13,383

Total actual cost at the end of week 2: $27,940

Actual hours worked at the end of week 2 (week1 + week2):
Vinay = 40 + 0 + 10 + 33 = 83
Ashique = 8 + 29 + 0 + 1 + 0 + 40 = 78
Actual Cost = Hours Spent X Hourly Rate = (83x206) + (78x139) = $27,940

5. Estimated Cost Required to Complete (ECRC)

Total ECRC at the end of week 1: $30,576

ETC at the end of week 1:
Vinay = 10 + 75 = 85
Ashique = 4 + 0 + 90 = 94
ECRC = ETC X Hourly Rate = (85x206) + (94x139) = $30,576

Total ECRC at the end of week 2: $14,160

ETC at the end of week 2:
Vinay = 0 + 35 = 35
Ashique = 0 + 0 + 50 = 50
ECRC = ETC X Hourly Rate = (35x206) + (50x139) = $14,160

6. Current Estimated Cost At Completion (CECC)

Total CECC at the end of week 1: $43,959

CECC = Actual Cost + Estimated Cost Required to Complete = 13,383 + 30,576 = $43,959

Total CECC at the end of week 2: $42,100

CECC = Actual Cost + Estimated Cost Required to Complete = 27,940 + 14,160 = $42,100

7. % Complete

% complete for all effort at the end of week 1: 30.4%

%Complete = AC/CECC = 13,383/43,959 = 30.4%

% complete for all effort at the end of week 2: 66.3%

%*Complete = AC/CECC = 27,940/42,100 = 66.3%*

8. Earned Value

Total earned value at the end of week 1: $12,585.6

Earned Value = % Complete X Planned Value = 30.4% x 41,400 = $12,585.6

Total earned value at the end of week 2: $27,448.2

Earned Value = % Complete X Planned Value = 66.3% x 41,400 = $27,448.2

9. Cost Variance %

Total cost variance % at the end of week 1: -6.0%

Cost Variance % = (EV - AC) / EV = (12,585.6 − 13,383) / 12,585.6 = -0.06

Total cost variance % at the end of week 2: -1.0%

Cost Variance % = (EV - AC) / EV = (27,448.2 − 27,940) / 27,448.2 = -0.01

10. Schedule Variance %

Total schedule variance % at the end of week 1:   -69.0%

Schedule Variance % = (EV - PV) / PV = (12,585.6 – 41,400) / 41,400 = -0.69

Total schedule variance % at the end of week 2:   -33.0%

Schedule Variance % = (EV - PV) / PV = (27,448.2 – 41,400) / 41,400 = -0.33

11. Conclusions

Is the project tracking over or under budget at the end of week 2?   **Over-budget** *(slightly)*

Since the value for **Cost Variance %** calculated is **negative**, the project seems to be tracking over budget. Though negative, the actual value is very minimal, **-1.0%,** the budget deviation seems to be **negligible** and **not a major concern** at this point.

Is the project tracking behind or ahead of schedule at the end of week 2?   **Behind**

Since the value for **Schedule Variance %** calculated is **negative (-33.0%)**, the project seems to be tracking behind schedule.

12. Call to Action

As the lead business analyst, I would **proactively engage with the team** to understand the root causes of the -**33% schedule variance** and determine whether any upcoming risks could further impact progress. I would ask team members, **"Are things going in the manner as the numbers suggest?"** and encourage **open discussion** about **potential hurdles** that **haven't yet been reflected in the data**. High achievers may overestimate their ability to catch up, while introverted team members might hesitate to share concerns, so I would ensure everyone feels heard and believed. Given the **slight budget overage (-1.0%)**, I would monitor cost efficiency but focus primarily on addressing the schedule delay. Further, I would work with stakeholders to **adjust resource allocation** to get the project back on track while ensuring a manageable workload for the team.