# Variance Analysis

Benjamin Srock

Embry-Riddle Aeronautical University Worldwide Campus

Capstone Project

PMGT-690

Stephen Onu, Ph.D.

# Directing and Controlling Projects with EVM Benjamin Srock

Embry-Riddle Aeronautical University Worldwide Campus

Planning, Directing, and Controlling Projects

PMGT-614

Jimmie Flores Ph.D.

July 9, 2017

# Table of Contents

Variance Report	4
Change Request	5
Figure 9. Change Request Form	6

## Directing and Controlling Projects with EVM

## Variance Report

Monitoring is a critical aspect of all project management. Once an issue is discovered, it must be reported and corrected as soon as possible. *Figure 8* represents one version of a variance report. This report is issued in support of the variance noted during the first half of the bicycle project.

Variance Analysis Report									
Project	Bicycle			Report Period	Period 4				
Date	9-Jul-17			WBS Element	1.5 Braking System				
				Cost Variance		Schedule Variance			
	PV	EV	AC	CV	CV%	SV	SV %		
Current Period	\$3,234.79	\$3,396.52	\$3,720.00	-\$323.48	-15%	\$161.74	5%		
Cumulative	\$3,234.79	\$3,396.52	\$3,720.00	-\$323.48	-15%	\$161.74	5%		
At Completion	BAC	EAC	VAC						
At Completion	\$10,000.00	\$7,167.75	\$2,832.25						

#### SCHEDULE VARIANCE

**Program/Task Impact**: Currently, the project is on schedule to complete five percent ahead of schedule. As a result, the earned value is outpacing the planned value.

**Corrective Action Plan:** The source of the variance does not rest with the schedule. Since the bicycle project is being tracked as a 0 / 100 type of completion, the schedule will continue to be monitored for any slip. Currently, the project is ahead of schedule. No action necessary.

#### **COST VARIANCE**

#### Problem Analysis - Cause

\$323.48 of the cost variance is in direct relation to a failed vendor delivery.

#### **Program Impact**

The additional cost of \$323.48 is directly related to parts procurement. No impact to labor is anticipated.

#### **Corrective Action Plan**

All procurement contracts will be visited and a claim laid against the original vendor for the overage experienced. All other contracts and vendors will be reviewed for potential savings. In addition, labor will visited to offset the additional cost with labor savings.

Figure 1. Period 4 Variance Analysis Report

## **Change Request**

Monitoring and controlling is a formal process where issues discovered, recorded, reported, and corrected. During the monitoring process, a cost variance was discovered and reported on the variance analysis report presented in *figure 8*. To correct the issue noted, the report must be converted into a change request with formal instructions to resolve the issue. *Figure 9* represents the change request form issued to correct the cost variance.

## **Project Change Request Form**

Name of Project: BICYCLE Project Manager: Benjamin Srock

Change Request #: 2.0 Change Request Date: 9-Jul-17

Change Requested by Name: Project Manager Current Project Phase: Period 4

**Description of Change:** Project manager reports period 4 WBS 1.5 Braking System with a cost variance of -15%. Requests reduction in procurement costs. The project team recommends:

- Resourcing reducing costs associated with WBS 1.6 and 1.8 parts. Particular attention to be paid to the \$709.66 scheduled for the training wheels and labor.
- 2. Crashing the time to assemble and install the training wheels (WBS 1.8) from 1 day to 1 hour.
- 3. Crashing the time to install the shifting system (WBS 1.6) from 1 day to 3 hours.

Original completion date: 23-Jun-17 Revised completion date: 23-Jun-17

Scope Impact: The scope will remain unchanged. Additional changes to the project documents will be necessary.

Cost Impact: The total cost of crashing labor and changing procurement sources, leads to a reduction in the overall cost of \$323.48

Quality Impact: The quality level of the product will remain unchanged.

Possible Risks: The possibility of failing locate alternate sources for parts procurement.

Crash costs exceed the estimated costs causing new delays or change of scope.

Outside vendor delays getting materials, which can cause additional delays to the schedule.

Reviewed by: Benjamin Srock Position: Project Manager Date: 9-Jul-17

Recommended Action: APPROVE

Figure 9. Change Request Form

## References

A Guide to the Project Management Body of Knowledge (PMBOK Guide) (Fifth ed.). (2013).

Newton Square, Pennsylvania: Project Management Institute, Inc.