Quantitative Risk Analysis (Part B)

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Assessing and Managing Project Risk

PMGT 613

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Table of Contents

List of Figures

Part B

The Project Management Office has received a decision from the senior leadership of your organization, to bring the project timeline in from the current 26 weeks (based on the information above). Your team has been asked to look at crashing the schedule to 14 weeks. The Project Management Office would like to know if the schedule can be crashed to 14 weeks and what the cost would be to crash the schedule. Using Excel QM software and looking in the Project Management category, choose the Crashing link. Fill in the data based on the 9 milestones from both tables (Part A and B). Copy the resulting table in to your team's Risk Management Plan in section 2.4.2 Quantitative Analysis – Excel QM after the results of Part A. Note: you may need to add the Solver tool to Excel QM if you do not see it in the Data Analysis section of QM. To do this go to the main TOOLS menu in the top tool bar, click on Add-Ins, and then select Solver.

In addition to the information in Part A you have the following data:

Milestone	Crash time(weeks)	Normal Cost	Crash cost per week
A	1	$8,000	$1,500
B	2	$12,000	$1,500
C	3	$14,000	$2,000
D	4	$19,000	$3,000
E	2	$13,000	$1,000
F	3	$9,000	$500
G	2	$16,500	$2,000
H	4	$22,000	$3,000
I	2	$5,500	$500

Please note that the crash cost is a per week cost and the tool asks for total cost (normal and crash).

Resulting Table

Activity	Normal Time (weeks)	Crash Time (weeks)	Normal Cost	Total Cost with Crashing	Immediate Predecessor(s)	Pred 2	Pred 3	Pred 4
A	4	1	$8,000	$1,500				
B	6	2	$12,000	$3,000				
C	7	3	$14,000	$6,000	A	B		
D	8	4	$19,000	$12,000	B			
E	5	2	$13,000	$2,000	B			
F	5	3	$9,000	$1,500	C			
G	7	2	$16,500	$4,000	D			
H	8	4	$22,000	$12,000	D	E		
I	4	2	$5,500	$1,000	F	G	H	

Figure 1 – Input

	Intermediate Computations	
Crash days	**Crash cost/day**	**Crash limit**
3	-2166.67	3
4	-2250	4
4	-2000	4
4	-1750	4
3	-3666.67	3
2	-3750	2
5	-2500	5
4	-2500	4
2	-2250	2
Minimum crash cost to meet project goal	**$**	**(76,000.00)**
Project time		**14**

Figure 2 - Result Table