Planning Process Group Artifacts

11.3 Perform Qualitative Risk Analysis

11.3.2 Probability and Impact Matrix (Tools and Techniques)

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11.3.2 Probability and Impact Matrix (Tools and Techniques): This matrix was taken from the risk register that was developed by the team in PMGT 613. Risks can be prioritized for further qualitative analysis and planning risk responses based on their risk rating. This matrix takes into account the probability, threat along with potential opportunities and place them in a numerical matrix. This tool provides visual representation and shows each risk on its probability of occurrence and impact if it occurs. High impact items are things that would be very costly and or delay critical path items.

Appendix B

Probability and Impact Matrix

Directions: The 5 x 5 matrix is used in conjunction with a probability and impact matrix that defines each cell in the matrix. Using the blank template below, create your own table that includes rating level titles, definitions, and rating values in the two categories of "Impact" and "Probability."

Impact / Severity of Consequences			**Probability / Likelihood of Occurrence**			
Severity Level	**Definition**	**Value**	**Likelihood Level**	**Definition**	**Numeric Probability**	**Value**
1	**Cost** – Minimal or no impact **Schedule** – Minimal or no impact **Technical** – Minimal or no impact	1-6	1	Not Likely	~ 10%	1-6
2	**Cost** – Cost increase or unit production cost increases of < 1% of cost/budget **Schedule** – Additional activities required, able to meet key dates. Slip of < 2 weeks **Technical** – Minor technical/supportability shortfall (no impact to key performance parameters, operational evaluation, or critical operational issues)	1-6	2	Low Likelihood	~ 30%	1-6
3	**Cost** – Cost increase or unit production cost increases of < 5% of cost/budget **Schedule** – Minor schedule slip, no impact to key milestones. Slip of < 1 months **Technical** – Moderate technical/supportability shortfall; limited impact to program	8-12	3	Likely	~ 50%	8-12

Impact / Severity of Consequences			Probability / Likelihood of Occurrence			
Severity Level	**Definition**	**Value**	**Likelihood Level**	**Definition**	**Numeric Probability**	**Value**
4	**Cost** – Cost increase or unit production cost increase of < 10% of cost/budget **Schedule** – Program critical path affected, all schedule float associated with key milestones exhausted. Slip of < 2 months **Technical** – Major technical/supportability shortfall; may jeopardize program success; workarounds may not be available	15-25	4	Highly Likely	~ 70%	15-25
5	**Cost** – Exceeds agreed upon threshold amount > 10% of cost/budget **Schedule** – Cannot meet key program milestones. Slip of > 3 months **Technical** – Cannot meet key performance parameter or key technical/supportability threshold	15-25	5	Near Certainly	~ 90%	15-25

Appendix C

5x5 Probability and Impact Matrix

Impact / Probability	1	2	3	4	5
5	5 **(2,3)**	10 **(10)**	15 **(15)**	20 **(19)**	25
4	4 **(1)**	8 **(7)**	12 **(13,14)**	16 **(16,17,18)**	20
3	3	6 **(5)**	9 **(8,9)**	12 **(12)**	15
2	2	4	6 **(4)**	8 **(6)**	10 **(11)**
1	1	2	3	4	5