

PMPG 5503 Capstone Research Project

Audit Plan

Project Name: Capstone Research Project

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1. Quantitative Approach *(describe how you will measure quantitative results - be clear, logical, measurable)*

The Quantitative approach is useful to describe the how much project management processes and knowledge areas project manager(sponsor) has used in his project and how it will in compliance with processes and knowledge area that are mentioned in PMBOK 6th edition. We will ask series of questions to our sponsor to determine the how much sponsor project is in compliance with PMBOK 6th edition. We will use 4 scale grade method in order to find out compliance.

a. Formula & Rationale for Process Compliance

To find out the process compliance, We will use 4 scale grade method. We will apply grade to all the process of the knowledge area and at the end we will get final compliance for processes.

Grade scale	Percentage alignment with Grade Scale
0	0 - 24
1	25 - 49
2	49 - 74
3	75 - 100

To debrief it, if 1 process has 7 tools and techniques but our sponsor has used 4 tools and techniques out of 7 than percentage process compliance with PMBOK 6th edition is $4/7 \times 100 = 57.14\%$

So 57.14% comes between 49% to 74% so we will give 2 grade for this particular process.

The formula to find out process compliance is below.

$$\frac{\text{Number of tools and techniques that our project sponsor has used in his project for particular process}}{\text{Number of tools and techniques that are mentioned in PMBOK 6th edition for particular process}} \times 100$$

b. Formula & Rationale for Knowledge Area Compliance

The formula to find out the percentage knowledge area compliance is below

$$\frac{\text{Sum of percentage compliance of all the processes in that knowledge area}}{\text{Number of process that is mention in PMBOK 6th edition for this particular knowledge area}} \times 100$$

For example, one knowledge area has 6 processes and the percentage compliance for each process is 67%, 78%, 67%, 89%, 56% 78%

Percentage knowledge area compliance is $\frac{67+78+67+89+56+78}{6} = 72.5\%$

72.5% comes from 49% to 74% so we will give 2 grade for this particular knowledge area.

c. Formula & Rationale for Overall Project Compliance

To find out the overall project compliance, we will use the average of all 10 knowledge area percentage compliance and then we will convert into the grade

For example percentage compliance for each 10 knowledge area is respectively 67% ,78% ,56% ,75% ,69% ,90% ,45% 85% ,65% ,78%

So we will take the average to find out overall project compliance.

$$\frac{67+78+56+75+69+90+45+85+65+78}{10} = 70.8\%$$

70.8% is come between 49% to 74% so we will give 2 grade to overall project.

Audit Questions (ensure you plan a minimum of one powerful question for each process in each knowledge area)

Knowledge Area	Process Group	Process (# and name)	Powerful Question
Project Integration Management	Initiating	4.1 Develop Project Charter	<ul style="list-style-type: none"> What information did you include in your project charter in order to get permission to start the project?
	Planning	4.2 Develop Project Management Plan	<ul style="list-style-type: none"> How did you develop project management plan for your project?
	Executing	4.3 Direct and Manage Project Work	<ul style="list-style-type: none"> How did you direct and manage project work in order to achieve project objective?
	Executing Monitoring and Controlling Closing	4.4 Manage Project Knowledge	<ul style="list-style-type: none"> What was your lesson learned from your project? How will you use the lesson that you learned from this project in future?
	Monitoring and Controlling	4.5 Monitor and Control Project Work	<ul style="list-style-type: none"> How did you track, review, and report the progress of your project? How did you improve the project performance?
	Executing	4.6 Perform Integrated Change Control	<ul style="list-style-type: none"> How did you review, approve and manage changes to deliverables of your project?
	Closing	4.7 Close Project or Phase	<ul style="list-style-type: none"> How did you close the project?

Project Scope Management	Planning	5.1 Plan Scope Management	<ul style="list-style-type: none"> How did you plan and document the scope?
	Planning	5.2 Collect Requirements	<ul style="list-style-type: none"> How did you gather the requirements that are essential to finish your project?
	Planning	5.3 Define Scope	<ul style="list-style-type: none"> How did you clarify the scope of your project?
	Planning	5.4 Create WBS	<ul style="list-style-type: none"> How did you divide whole project work into smaller parts?
	Monitoring and Controlling	5.5 Validate Scope	<ul style="list-style-type: none"> How did you check all deliverables is according to defined scope?
	Monitoring and Controlling	5.6 Control Scope	<ul style="list-style-type: none"> How did you maintain and follow the scope throughout the project?
Project Schedule Management	Planning	6.1 Plan Schedule Management	<ul style="list-style-type: none"> How did you plan the schedule for the entire project?
	Planning	6.2 Define Activities	<ul style="list-style-type: none"> How did you identify and document the activities?
	Planning	6.3 Sequence Activities	<ul style="list-style-type: none"> How did you prioritize and sequence the activity logically?
	Planning	6.4 Estimate Activity Durations	<ul style="list-style-type: none"> How did you calculate the activity durations?
	Planning	6.5 Develop Schedule	<ul style="list-style-type: none"> How did you make the schedule for your project?
	Monitoring and Controlling	6.6 Control Schedule	<ul style="list-style-type: none"> What was your effort to control the project schedule according to schedule management plan?
Project Cost Management	Planning	7.1 Plan Cost Management	<ul style="list-style-type: none"> What was your plan to estimate, budget, manage, monitor and control the cost?
	Planning	7.2 Estimate Costs	<ul style="list-style-type: none"> How did you estimate the cost of each activity and entire project?
	Planning	7.3 Determine Budget	<ul style="list-style-type: none"> How did you come up with the estimated final budget for the entire project?

			<ul style="list-style-type: none"> Which factors did you consider while estimating final budget for the entire project?
	Monitoring and Controlling	7.4 Control Costs	<ul style="list-style-type: none"> How did you check the project progress is under budget, over budget, and on the budget? How did you control the factors which have an influence on overall project cost?
Project quality management	Planning	8.1 Plan Quality Management	<ul style="list-style-type: none"> What was your plan to satisfy stakeholders in terms of quality? What quality standards, did you set for your project?
	Executing	8.2 Manage Quality	<ul style="list-style-type: none"> How did you incorporate the quality standards in your project?
	Monitoring and Controlling	8.3 Control Quality	<ul style="list-style-type: none"> How did you monitor the quality throughout the project? How did you handle the customer complaints about poor quality?
Project Resource Management	Planning	9.1 Plan Resource Management	<ul style="list-style-type: none"> What were your plan to estimate, acquire, manage and use team and physical resources?
	Planning	9.2 Estimate Activity Resources	<ul style="list-style-type: none"> How did you make the estimation of a team and physical resources?
	Executing	9.3 Acquire Resources	<ul style="list-style-type: none"> How did you acquire and assign resources which are essential to finish project work?
	Executing	9.4 Develop Team	<ul style="list-style-type: none"> What was your effort to make a positive environment in your project team?
	Executing	9.5 Manage Team	<ul style="list-style-type: none"> How did you track the individual performance and provide the feedback? How did you counsel your team members during the conflict?

	Monitoring and Controlling	9.6 Control Resources	<ul style="list-style-type: none"> How did you assign and release the resources right time, right place and right amount throughout the project?
Project Communication Management	Planning	10.1 Plan Communications Management	<ul style="list-style-type: none"> How did you plan the communication for your project?
	Executing	10.2 Manage Communications Management	<ul style="list-style-type: none"> What was your approach to maintaining effective communication between the lower level and higher level staff members?
	Monitoring and Controlling	10.3 Monitor Communications	<ul style="list-style-type: none"> How did you make sure that right information were reciprocate throughout project?
Project Risk Management	Planning	11.1 Plan Risk Management	<ul style="list-style-type: none"> How did you make prevention plan to avoid any risk?
	Planning	11.2 Identify Risks	<ul style="list-style-type: none"> How did you find out about risks that will interfere your project?
	Planning	11.3 Perform Qualitative Risk Analysis	<ul style="list-style-type: none"> How did you prioritize your project risks?
	Planning	11.4 Perform Quantitative Risk Analysis	<ul style="list-style-type: none"> How did you analyze the probability of risk occurs in the project?
	Planning	11.5 Plan Risk Responses	<ul style="list-style-type: none"> What was your preparation to address identified and unidentified risks?
	Executing	11.6 Implement Risks Responses	<ul style="list-style-type: none"> How did you tackle or minimize the effect of risks?
	Monitoring and Controlling	11.7 Monitor Risks	<ul style="list-style-type: none"> How did you check the status of risk responses that you implemented?
Project Procurement Management	Planning	12.1 Plan Procurement Management	<ul style="list-style-type: none"> What criteria did you set in order to award the contract to the potential sellers? What was your plan in order to conduct the procurement?
	Executing	12.2 Conduct Procurements	<ul style="list-style-type: none"> How did you conduct the procurement for your project? Which requirements did you mention in the contract(s) and legal agreement(s)?

	Monitoring and Controlling	12.3 Control Procurements	<ul style="list-style-type: none"> How did you check the service(s) and product(s) provided by the seller's is in compliance with contract(s) and legal agreement(s)
Project Stakeholder Management	Planning	13.1 Identify Stakeholders	<ul style="list-style-type: none"> What was your approach to identify high interest stakeholders?
	Planning	13.2 Plan Stakeholder Engagement	<ul style="list-style-type: none"> How did you communicate with all stakeholders and take appropriate decisions which profits all stakeholders.
	Executing	13.3 Manage Stakeholder Engagement	<ul style="list-style-type: none"> What was your approach to handle all stakeholders and deliver the information they want?
	Monitoring and Controlling	13.4 Monitor Stakeholder Engagement	<ul style="list-style-type: none"> What was your approach to maintaining relationship with project stakeholders?

References:

- Project Management Institute. (2004). *A guide to the project management body of knowledge (PMBOK guide)*. Newtown Square, Pa: Project Management Institute.