

I. PROJECT SELECTION

Consider the following information in choosing among the four project alternatives below. Each has been evaluated according to six criteria:

1. Supports key business objectives.
2. Has a strong internal sponsor.
3. Has strong customer demand.
4. Use of existing technology.
5. Has a higher NPV (A negative NPV gets zero).
6. Has low risk in meeting scope, schedule, and cost goals.

All six criteria have been assessed on a 100-point scale. Possible scores are 0, 20, 40, 60, 80, and 100. The table below illustrates how evaluation is made for each criterion.

	0	20	40	60	80	100
Business objectives	Minimally aligned.	Supports some objectives.	Supports almost half of the objectives.	Supports more than half of the objectives.	Supports most of the objectives.	Aligns totally.
Internal sponsor	Inadequate support.	Low support.	Fair support.	Moderate support.	High support.	Very high support.
Customer demand	Inadequate demand.	Low demand.	Fair demand.	Moderate demand.	High demand.	Very high demand.
Technology	Brand-new technology.	Used for a while, downtime is high.	Used for a while, needs frequent maintenance.	Used for a while, needs less maintenance.	Works most of the time with normal downtime.	Employees are highly skilled in using the tech.
NPV	Negative.	$0 < NPV \leq 30K$	$30K < NPV \leq 60K$	$60K < NPV \leq 90K$	$90K < NPV \leq 120K$	$120K < NPV \leq 800K$
Triple constraint risk	Very high.	High	Moderate	Fair	Low	Very low

	Business objectives	Internal sponsor	Customer demand	Technology	NPV	Triple constraint
Project Alpha	Supports some objectives.	High support.	Moderate demand.	Employees are highly skilled in using the tech.		Moderate
Project Beta	Supports more than half of the objectives.	High support.	High demand.	Used for a while, needs frequent maintenance.		Moderate
Project Gamma	Supports most of the objectives.	Very high support.	High demand.	Brand-new technology.		Very low
Project Delta	Aligns totally.	Fair support.	Moderate demand.	Used for a while, needs less maintenance.		Low

All the projects have cash outflows to invest in project activities. When projects generate their outcomes (products/services), they start to have cash inflows each year. All project outcomes have a lifetime of four years. The hurdle rate is 10%. The inflation rate is 4%. You should calculate NPVs for all projects. Then, you should fill in the scores after you calculate NPVs for each project. Cash flows are indicated for each project during four years in the table below:

Time	Alpha	Beta	Gamma	Delta
0	-300	-200	-250	-400
1	+100	+100	+50	+200
2	+100	+200	+50	+200
3	+100	+50	+100	+100
4	+150	+50	+50	+150

The weights of each criterion are as below:

Criteria	Weights
Business objectives	25%
Internal sponsor	10%
Customer demand	15%
Technology	10%
NPV	15%
Triple constraint risk	25%

QUESTIONS:

1. Calculate NPV for each project. **(10 points)**
 - ✓ Show how you made all calculations (e.g., discount factor for each year, and discounted cash flows for each year).
2. Which project do you select based on the weighted scoring model? **(10 points)**
 - ✓ If you use Excel to compute the weighted scores, copy and paste it on this document in your answer. You can have a screenshot with high resolution, too.
3. CEO and CFO of the company decided to change the weights. The new weights are as follows. Have you changed your decisions based on new weighted total scores? If so, explain why you changed it. **(5 points)**

Criteria	Weights
Business objectives	25%
Internal sponsor	20%
Customer demand	20%
Technology	10%
NPV	5%
Triple constraint risk	20%

4. As a CTO, you think that Project Alpha is crucial in terms of improving the company's IT infrastructure. How can you play with the weights to change the total score in favor of this project? Explain your reasoning thoroughly. Do you think that you can persuade the CEO, CFO, and other senior managers? **(10 points)**

II. ORGANIZATIONAL STRUCTURES

You are a member of the senior management staff at ABC Corporation which is designing, developing, and selling business analytics software and services. Your company has been using a functional structure since it was founded in 1975. It is set up with five departments which are production, research and development, finance, human resources, and marketing.

You prepared a report detailing the current problems your company is facing. In this study, you highlighted the points as follows:

- Many innovations have passed right by ABC Corporation because the company was slow to pick up signs from the marketplace that they were coming.
- Internal communication among the departments has problems. Some of the emails were not replied, and some of the functional managers and their employees did not attend some meetings at which their opinions and feedback were considered essential.
- There are new companies in the market, and there is a strong indication that new companies are planning to enter the market with new software programs and services with lower prices and better features.

In the board of directors meeting, it was decided to move to a project-oriented structure in line with the corporate's strategic objective to increase the competitive position in the global market. The president wanted you to prepare a report which discusses different organizational structures your company can proceed with.

ABC Corporation offers data integration, storage, analytics, and business intelligence applications. The company's solutions portfolio includes advanced analytics, AI solutions, business intelligence and analytics, cloud analytics, customer intelligence, fraud and security intelligence, IoT solutions, personal data protection, risk management, and supply chain intelligence. It caters to industries including automotive, communications, education, financial services, government, health insurance, healthcare providers, hospitality and entertainment, insurance, manufacturing, media, retail, and utilities. It operates across the Americas, Europe, the Middle East, Africa, and Asia- Pacific.

Its major strengths are a strong customer base across diversified industries, partnerships with major technology firms, and a strong market position. The areas of concern are patent infringement and private ownership (not publicly held). In the future, rapid technological changes, risk due to increasing IT complexity, and competitive pressures could affect its business operations. However, a positive outlook for the global machine-to-machine market, rising healthcare expenditure, demand for cloud computing, and new product launches are likely to offer growth opportunities to the company.

QUESTIONS:

1. What might be some of the internal and external pressures that would contribute to your report that it is necessary to alter the organizational structure? **(15 points)**
 - ✓ You should consider enterprise environmental factors and organizational process assets and consider SWOT analysis.
 - ✓ You should discuss at least two internal and two external pressures.
2. In your report, you advocated a transition from the functional structure, first to weak matrix structure in one year, then to a strong matrix structure in three years. Based on the company's products and services, re-create the structural design to show how both matrices would look. You need to draw two organizational charts, one for a weak matrix, another for a strong matrix. **(10 points)**
 - ✓ You can draw it on paper, take a picture, and paste it on this document.
 - ✓ You can use Microsoft Visio, PowerPoint, another drawing app, and paste it on this document.
3. What behavioral problems could you begin to anticipate through this design? That is, do you see any potential points of friction in the new dual hierarchy setup? Discuss it first for the weak matrix structure, then for the strong matrix structure. Consider the pros and cons of these structures. **(10 points)**

III. IDENTIFYING STAKEHOLDERS

A mobile communications company's organic and successful growth led to the need for an enterprise-wide supply chain IT system. The company decided on hardware and software that had been successfully used at a large number of other similar companies. The Supply Chain Director was put in the position of the sponsor. After the system go-live, customers were not receiving products they had ordered, invoices were delayed or lost, sales employees were resisting the changes and, as a result, the company was losing credibility fast.

The project manager organized a stakeholder mapping exercise, which had not previously been undertaken. This soon highlighted the core issues. The Supply Chain Director, relatively new to the organization, lacked influence and credibility with the recipients in areas of the organization most impacted by the change—most notably, sales. The stakeholder map also allowed the leadership team to understand that the leads originally assigned to the project were not able to persuade the front-line sales force to attend training—never mind even consider using the new solution!

As a result of the insight gained from this activity, the decision was made to strengthen sustaining sponsorship in the sales function. In particular, the sales director was characterized as someone with high influence but low commitment. It was also decided to substitute some of the less credible leads with more influential people, particularly in the sales function. These two actions helped rescue a failing project.

QUESTIONS:

1. Based on this case study, develop a power/interest grid.
 - a. Include all stakeholders mentioned in the case study above. **(5 points)**
 - b. Besides, you should include at least two more stakeholders that were not discussed in the case study. Think about other functional units in the company as well as external stakeholders. **(5 points)**
 - c. You can draw the grid on a paper, take a picture, and paste it on this document.
 - d. You can use Microsoft Visio, PowerPoint, another drawing app, and paste it on this document.
2. Explain and substantiate why you placed each stakeholder in their relevant quadrant. **(10 points)**
3. Finally, develop strategies to manage these stakeholders more effectively based on the mistakes the sponsor, project manager, and project team did. **(10 points)**