ANSWERS OF MODEL TEST PAPER 8

INTERMEDIATE: GROUP - II

PAPER - 6: FINANCIAL MANAGEMENT & STRATEGIC MANAGEMENT

PAPER 6A: FINANCIAL MANAGEMENT

Suggested Answers/ Hints

PART I - Case Scenario based MCQs

1. i. (D) ₹ 3.3779

ii. (B) ₹8.3655

iii. (A) ₹72.28

iv. (C) ₹45.79

v. (B) ₹54.33

Intrinsic Value = Sum of PV of Expected Dividends + PV of Share Price at the end of the period

The following steps are required:

- A. Determine PV of expected dividends to be received in the next four years.
- B. Determine PV share at the end of 4th Year.
- C. Add the values of A and B above.

(A)

Year	$D_1 = D_0(1+g)$	PV Discount Factor @ 12%	PV in ₹
1	2(1+14%) =2.28	0.893	2.0364
2	2.28(1+14%) =2.5992	0.797	2.0715
3	2.5992(1+14%) =2.9631	0.712	2.1097
4	2.9631(1+14%) = 3.3779	0.636	2.1483
(A) Total PV of Expected Dividend			₹ 8.3655

$$P_4 = \frac{D_5}{K_e - g} = \frac{D_4(1+g)}{K_e - g} = \frac{3.3779(1+7\%)}{12\% - 7\%} =$$
72.28

- (B) PV of share at the end of 4th Year = ₹ 72.28 x 0.636 =₹ **45.97**
- (C) Market Price of shares = ₹ 8.3655 + ₹ 45.97=₹ **54.33**
- 2. (B) 6.16%

To calculate WACC, we use the formula:

WACC =
$$(E/V) \times Re + (D/V) \times Rd \times (1 - Tc)$$

Let V be the total value of the firm, then Debt is equal to 1.5/(1+1.5) times the value of the firm and Equity is equal to 1/(1+1.5) times the value of the firm.

So, D/V =
$$1.5/(1+1.5) = 0.6$$
 and E/V = $1/(1+1.5) = 0.4$

WACC =
$$0.4 \times 10\% + 0.6 \times 6\% \times (1 - 40\%) = 4\% + 2.16\% = 6.16\%$$

Therefore, the company's weighted average cost of capital is 6.16%.

3. (A) 1.11

EBIT =
$$3,00,000 \times (3-1) - 3,50,000 = 2,50,000$$
,
PBT = $2,50,000 - 25,000 - 2,25,000$
FL = $2,50,000/2,25,000 = 1.11$

4. (C) both automatic and approval route

PART II - Descriptive Questions

1. (a) Calculation of Cost of Preference Shares (Kp)

Preference Dividend (PD) = 0.12 x 40,000 x 100 = 4,80,000
Floatation Cost = 40,000 x 2 = ₹ 80,000
Net Proceeds (NP) = 42,00,000 - 80,000 = 41,20,000
Redemption Value (RV)= 40,000 x 110 = 44,00,000
Cost of Redeemable Preference Shares =
$$\frac{PD + (RV - NP)/N}{RV + NP}$$

$$\begin{split} \mathsf{K}_{p} &= \frac{4,80,000 + (44,00,000 - 41,20,000) / 10}{\frac{44,00,000 + 41,20,000}{2}} \\ &= \frac{4,80,000 + (2,80,000) / 10}{85,20,000 / 2} \\ &= \frac{4,80,000 + 28,000}{42,60,000} = \frac{5,08,000}{42,60,000} \\ &= 0.1192 \\ \mathsf{K}_{p} &= 11.92\% \end{split}$$

(**Note:** K_p may be computed alternatively by taking the RV and NP for one unit of preference shares. Final figure would remain unchanged).

(b) Calculation of Net Cash flow

Contribution =
$$(3.00 - 1.75) \times 50{,}000$$
 = ₹ 62,500
Fixed costs = $40{,}000 - [(1{,}25{,}000 - 30{,}000)/5]$ = ₹ 21,000

Year	Capital (₹)	Contribution (₹)	Fixed costs (₹)	Adverts (₹)	Net cash flow (₹)
0	(1,00,000)	ı	1	1	(1,00,000)
1	(25,000)	62,500	(21,000)	(10,000)	6,500
2	-	62,500	(21,000)	(15,000)	26,500
3	-	62,500	(21,000)	-	41,500

4	-	62,500	(21,000)	-	41,500
5	30,000	62,500	(21,000)	-	71,500

Calculation of Net Present Value

Year	Net cash flow (₹)	10% discount factor	Present value (₹)
0	(1,00,000)	1.000	(1,00,000)
1	6,500	0.909	5,909
2	26,500	0.826	21,889
3	41,500	0.751	31,167
4	41,500	0.683	28,345
5	71,500	0.621	44,402
		NPV	31,712

The net present value of the project is ₹ 31,712.

(c)

	(₹)
Sales	24,00,000
Less: Variable cost	12,00,000
Contribution	12,00,000
Less: Fixed cost	10,00,000
EBIT	2,00,000
Less: Interest	1,00,000
EBT	1,00,000
Less: Tax (50%)	50,000
EAT	50,000
No. of equity shares	10,000
EPS	5

(a) Operating Leverage =
$$\frac{₹12,00,000}{₹2,00,000}$$
 = 6 times

(b) Financial Leverage =
$$\frac{₹2,00,000}{₹1,00,000}$$
 = 2 times

(c) Combined Leverage = $OL \times FL = 6 \times 2 = 12$ times.

(d) ROI =
$$\frac{\text{₹50,000}}{\text{₹10,00,000}} \times 100 = 5\%$$

Here ROI is calculated as ROE i.e. $\frac{\text{EAT-Pref.Dividend}}{\text{Equity shareholders' fund}}$

(e) Operating Leverage = 6

$$6 = \frac{\Delta EBIT}{0.25}$$

$$\Delta \, \mathsf{EBIT} = \frac{6 \times 1}{4} = 1.5$$

Increase in EBIT = ₹ 2,00,000 × 1.5

2. Working Notes:

1. Raw Material Storage Period (R)

Annual Consumption of Raw Material = Opening Stock + Purchases-Closing Stock

2. Work-in-Progress (WIP) Conversion Period (W)

WIP Conversion Period =
$$\frac{\text{Average Stock of WIP}}{\text{Annual Cost of Production}} \times 365$$

3. Finished Stock Storage Period (F)

=
$$\frac{₹ 65,178}{₹ 9.15,000} \times 365$$
 = 26 days.

Average Stock =
$$\frac{₹60,181+₹70,175}{2}$$

= ₹65,178.

4. Debtors Collection Period (D)

Average debtors =
$$\frac{\text{₹1,12,123} + \text{₹1,35,000}}{2} = \text{₹1,23,561.50}$$

5. Creditors Payment Period (C)

$$= \frac{\left(\frac{₹50,079 + ₹70,469}{2}\right)}{\cancel{₹}4,00.000} \times 365$$

= 55 days

(i) Operating Cycle Period

$$= 53 + 21 + 26 + 41 - 55$$

= 86 days

(ii) Number of Operating Cycles in the Year

$$= \frac{365}{\text{Operating Cycle Period}} = \frac{365}{86} = 4.244$$

(iii) Amount of Working Capital Required

=
$$\frac{\text{Annual Operating Cost}}{\text{Number of Operating Cycles}}$$
 = $\frac{₹ 9,50,000}{4.244}$ = ₹ 2, 23,845.42

3. (a) Plan I = Raising Debt of ₹ 2.5 lakh + Equity of ₹ 22.5 lakh

Plan II = Raising Debt of ₹ 10 lakh + Equity of ₹ 15 lakh

Plan III = Raising Debt of ₹ 15 lakh + Equity of ₹ 10 lakh

Calculation of Earnings per share (EPS):

	FINANCIAL PLANS			
Particulars	Plan I	Plan II	Plan III	
	₹	₹	₹	
Expected EBIT	5,00,000	5,00,000	5,00,000	
Less: Interest (a)	(25,000)	(1,37,500)	(2,37,500)	
Earnings before taxes	4,75,000	3,62,500	2,62,500	
Less: Taxes @ 50%	(2,37,500)	(1,81,250)	(1,31,250)	
Earnings after taxes (EAT)	2,37,500	1,81,250	1,31,250	
Number of shares (b)	15,000	10,000	8,000	
Earnings per share (EPS)	15.83	18.13	16.41	

Financing Plan II (i.e. Raising debt of ₹ 10 lakh and issue of equity share capital of ₹ 15 lakh) is the option which maximises the earnings per share.

Working Notes:

(a) Calculation of interest on Debt

Plan		₹	₹
I	(₹ 2,50,000 ´ 10%)		25,000
II	(₹ 2,50,000 ´ 10%)	25,000	
	(₹ 7,50,000 ´ 15%)	1,12,500	1,37,500
Ш	(₹ 2,50,000 ´ 10%)	25,000	
	(₹ 7,50,000 ´ 15%)	1,12,500	
	(₹ 5,00,000 ´ 20%)	1,00,000	2,37,500

(b) Number of equity shares to be issued

Plan I =
$$\frac{₹ 22,50,000}{₹ 150 \text{ (Market price of share)}} = 15,000 \text{ shares}$$

Plan II = $\frac{₹ 15,00,000}{₹ 150} = 10,000 \text{ shares}$

Plan III = $\frac{₹ 10,00,000}{₹ 125} = 8,000 \text{ shares}$

(b)

	Ratios	Navya Ltd.	Industry Norms
1.	$Current Ratio = \frac{Current Assets}{Current Liabilities}$	₹52,80,000 ₹19,80,000 = 2.67	2.50
2	Receivable Turnover Ratio $= \frac{\text{Sales}}{\text{Debtors}}$	₹1,10,00,000 ₹11,00,000 = 10.0	8.00
3.	Inventory turnover ratio = $\frac{\text{Sales}}{\text{Stock}}$	₹1,10,00,000 ₹33,00,000 = 3.33	9.00
4.	Total Asset Turnover ratio $= \frac{\text{Sales}}{\text{Total Assets}}$	₹1,10,00,000 ₹77,00,000 = 1.43	2.00
5	Net Profit Ratio = $\frac{\text{Net Profit}}{\text{Sales}}$	₹2,31,000 ₹1,10,00,000 = 2.10%	3.50%
6.	Return on Total Asset $= \frac{EBIT}{Total Assets}$	₹5,54,000 ₹77,00,000 = 7.19%	7%

7.	Return on Net worth = $\frac{\text{Net Profit}}{\text{Net Worth}}$	₹2,31,000 ₹48,00,000 = 4.81%	10.5%
8.	Total Debt Total Assets	₹29,00,000 ₹77,00,000 = 37.66%	60%

Comments:

- 1. The position of Navya Ltd. is better than the industry norm with respect to Current Ratio and Receivables Turnover Ratio.
- 2. However, the Inventory turnover ratio and Total Asset Turnover ratio is poor comparing to industry norm indicating that company is inefficient to utilize its inventory and assets.
- 3. The firm also has its net profit ratio and return on net worth ratio much lower than the industry norm.
- 4. Total debt to total assets ratio is lower that the industry standard which suggests that the firm is less levered by debt and more by equity resulting in less risky company.
- Inter-relationship between Investment, Financing and Dividend 4. **Decisions:** The finance functions are divided into three major decisions, viz., investment, financing and dividend decisions. It is correct to say that these decisions are inter-related because the underlying objective of these three decisions is the same, i.e. maximisation of shareholders' wealth. Since investment, financing and dividend decisions are all interrelated, one has to consider the joint impact of these decisions on the market price of the company's shares and these decisions should also be solved jointly. The decision to invest in a new project needs the finance for the investment. The financing decision, in turn, is influenced by and influences dividend decision because retained earnings used in internal financing deprive shareholders of their dividends. An efficient financial management can ensure optimal joint decisions. This is possible by evaluating each decision in relation to its effect on the shareholders' wealth.

The above three decisions are briefly examined below in the light of their inter-relationship and to see how they can help in maximising the shareholders' wealth i.e. market price of the company's shares.

Investment decision: The investment of long term funds is made after a careful assessment of the various projects through capital budgeting and uncertainty analysis. However, only that investment proposal is to be accepted which is expected to yield at least so much return as is adequate to meet its cost of financing. This have an influence on the profitability of the company and ultimately on its wealth.

Financing decision: Funds can be raised from various sources. Each source of funds involves different issues. The finance manager has to maintain a proper balance between long-term and short-term funds. With the total volume of long-term funds, he has to ensure a proper mix of

loan funds and owner's funds. The optimum financing mix will increase return to equity shareholders and thus maximise their wealth.

Dividend decision: The finance manager is also concerned with the decision to pay or declare dividend. He assists the top management in deciding as to what portion of the profit should be paid to the shareholders by way of dividends and what portion should be retained in the business. An optimal dividend pay-out ratio maximises shareholders' wealth.

The above discussion makes it clear that investment, financing and dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the shareholders' wealth.

(b) The financing of current assets involves a trade off between risk and return. A firm can choose from short or long term sources of finance. Short term financing is less expensive than long term financing but at the same time, short term financing involves greater risk than long term financing.

Depending on the mix of short term and long term financing, the approach followed by a company may be referred as matching approach, conservative approach and aggressive approach.

In matching approach, long-term finance is used to finance fixed assets and permanent current assets and short term financing to finance temporary or variable current assets. Under the conservative plan, the firm finances its permanent assets and also a part of temporary current assets with long term financing and hence less risk of facing the problem of shortage of funds.

An aggressive policy is said to be followed by the firm when it uses more short term financing than warranted by the matching plan and finances a part of its permanent current assets with short term financing.

(c) Optimum Capital Structure: The capital structure is said to be optimum when the firm has selected such a combination of equity and debt so that the wealth of firm is maximum. At this capital structure, the cost of capital is minimum and the market price per share is maximum.

Or

(c) In dividend price approach, cost of equity capital is computed by dividing the current dividend by average market price per share. This ratio expresses the cost of equity capital in relation to what yield the company should pay to attract investors. It is computed as:

$$K_e = \frac{D_1}{P_0}$$

Where,

 D_1 = Dividend per share in period 1

 P_0 = Market price per share today

ANSWERS OF MODEL TEST PAPER 8 PAPER 6B: STRATEGIC MANAGEMENT PART I

- 1. (A) (i) (b) (ii) (a) (iii) (d) (iv) (b) (v) (a)
- 1. (B) (i) (b) (ii) (a) (iii) (d)

PART II

1. (a) The Matrix Relationship is the most effective structure for Tech Innovators Inc. to achieve its vision of leadership in AI technologies. This structure promotes cross-functional collaboration, essential for managing complex AI projects and fostering innovation. By integrating expertise from various departments into temporary, task-based teams, the Matrix Relationship supports dynamic project management and aligns well with the company's strategic goals for advancing AI technologies. Despite its complexity, this approach provides the flexibility and collaboration necessary for a leading-edge AI and ML focus.

Relationship	Benefits	Drawbacks	Suitability for Al Leadership
Functional and Divisional	Specialization, clear management of functions and products.	Potential for departmental isolation, limited collaboration.	
Horizontal	Open communication, encourages innovation and fast idea sharing.	Hard to scale, unclear roles and responsibilities.	Suitable for startups, less for large Al initiatives.
Matrix	Facilitates cross- functional collaboration, flexible resource management for complex projects.	Complex reporting structures, potential conflicts.	Ideal for managing diverse, innovative Al projects.

(b) The competitive rivalry will be a significant force in case of company of Rajiv Arya as all the rivals are similar in sizes and are manufacturing similar products. It is difficult for any single manufacturer to dominate the market. Large number of patents will make it difficult for new entrants to break into the market. Further, as there are a large number of small suppliers the power that suppliers can exert will also be low.

There is no information relating to substitutes and bargaining power of customers in the information given in scenario. However, a domestic vacuum cleaner will directly compete with other options such as house maids. Availability of house maids at low cost can significantly disturb the sales of products.

Further, as the products are similar customers can easily shift from one company to another. This will only enhance competitive rivalry.

(c) PQR Ltd. has planned to implement the Strategic Business Unit (SBU) structure. Very large organisations, particularly those running into several products, or operating at distant geographical locations that are extremely diverse in terms of environmental factors, can be better managed by creating strategic business units. SBU structure becomes imperative in an organisation with increase in number, size and diversity.

The attributes of an SBU and the benefits a firm may derive by using the SBU Structure are as follows:

- ♦ A scientific method of grouping the businesses of a multi business corporation which helps the firm in strategic planning.
- ♦ An improvement over the territorial grouping of businesses and strategic planning based on territorial units.
- ♦ Strategic planning for SBU is distinct from rest of businesses. Products/ businesses within an SBU receive same strategic planning treatment and priorities.
- ♦ Each SBU will have its own distinct set of competitors and its own distinct strategy.
- ♦ The CEO of SBU will be responsible for strategic planning for SBU and its profit performance.
- ♦ Products/businesses that are related from the standpoint of function are assembled together as a distinct SBU.
- ♦ Unrelated products/ businesses in any group are separated into separate SBUs.
- ♦ Grouping the businesses on SBU lines helps in strategic planning by removing the vagueness and confusion.
- ♦ Each SBU is a separate business and will be distinct from one another on the basis of mission, objectives etc.
- 2. (a) Strategic management involves developing the company's vision, environmental scanning, strategy formulation, implementation, evaluation and control. It emphasizes the monitoring and evaluation of external opportunities and threats in the light of a company's strengths and weaknesses and designing strategies for survival and growth. It helps in the creation of a competitive advantage to outperform the competitors and also guides the company successfully through all changes in the environment.

The major benefits of strategic management are:

- ♦ Strategic management gives directions to the company to move ahead. It defines the goals and mission.
- ♦ It helps organisations to be proactive instead of reactive in shaping their future.
- ♦ It provides frameworks for all major decisions of an enterprise such as decisions on businesses, products, markets, manufacturing facilities, investments and organisational structure. It provides better guidance to the entire organisation on the crucial point what it is trying to do.
- ♦ It helps organisations to identify the available opportunities and identify ways and means to achieve them.
- ♦ It serves as a corporate defence mechanism against mistakes and pitfalls.
- ♦ It helps to enhance the longevity of the business.
- ♦ It helps the organisation to develop certain core competencies and competitive advantages that would facilitate survival and growth.
- (b) The company went through the following stages of the product life cycle (PLC):

Introduction stage: Initially, the company faced slow sales growth, limited markets, and high prices, which are characteristic of the introduction stage. During this stage, competition is almost negligible, and customers have limited knowledge about the product.

Growth stage: Over time, the demand for the product expanded rapidly, prices fell, and competition increased. These are typical features of the growth stage in the PLC. In this stage, the product gains market acceptance, and customers become more aware of the product's benefits and show interest in purchasing it.

- 3. (a) A strategic alliance is a relationship between two or more businesses that enables each to achieve certain strategic objectives which neither would be able to achieve on its own. The strategic partners maintain their status as independent and separate entities, share the benefits and control over the partnership, and continue to make contributions to the alliance until it is terminated. The advantages of strategic alliance can be broadly categorised as follows:
 - (a) Organizational: Strategic alliance helps to learn necessary skills and obtain certain capabilities from strategic partners. Strategic partners may also help to enhance productive capacity, provide a distribution system, or extend supply chain.
 - (b) **Economic:** There can be reduction in costs and risks by distributing them across the members of the alliance. Greater economies of scale can be obtained in an alliance, as production volume can increase, causing the cost per unit to decline. The

- partners can also take advantage of co-specialization, creating additional value.
- (c) Strategic: Rivals can join together to cooperate instead of competing. Strategic alliances may also be useful to create a competitive advantage by the pooling of resources and skills. This may also help with future business opportunities and the development of new products and technologies. Strategic alliances may also be used to get access to new technologies or to pursue joint research and development.
- (d) **Political:** Sometimes strategic alliances are formed with a local foreign business to gain entry into a foreign market either because of local prejudices or legal barriers to entry.
- **(b)** Strategic performance measures are essential for organizations for several reasons:
 - ♦ Goal Alignment: Strategic performance measures help organizations align their strategies with their goals and objectives, ensuring that they are on track to achieve their desired outcomes.
 - ♦ Resource Allocation: Strategic performance measures provide organizations with the information they need to make informed decisions about resource allocation, enabling them to prioritize their efforts and allocate resources to the areas that will have the greatest impact on their performance.
 - ♦ Continuous Improvement: Strategic performance measures provide organizations with a framework for continuous improvement, enabling them to track their progress and make adjustments to improve their performance over time.
 - ♦ External Accountability: Strategic performance measures help organizations demonstrate accountability to stakeholders, including shareholders, customers, and regulatory bodies, by providing a clear and transparent picture of their performance.
- **4. (a)** The following are the principal points of distinction between concentric diversification and conglomerate diversification:
 - (i) Concentric diversification occurs when a firm adds related products or markets. On the other hand, conglomerate diversification occurs when a firm diversifies into areas that are unrelated to its current line of business.
 - (ii) In concentric diversification, the new business is linked to the existing businesses through process, technology or marketing. In conglomerate diversification, no such linkages exist; the new business/product is disjointed from the existing businesses/ products.
 - (iii) The most common reasons for pursuing concentric diversification are that opportunities in a firm's existing line of business are

available. However, common reasons for pursuing a conglomerate growth strategy are that opportunities in a firm's current line of business are limited or opportunities outside are highly lucrative.

(b) Channels represent the **distribution system** through which organizations distribute their products or provide services to customers. They play a pivotal role in reaching target markets, maximizing sales, and establishing competitive advantages.

Channel analysis is important when the business strategy is to scale up and expand beyond the current geographies and markets. When a business plans to grow to newer markets, they need to develop or leverage existing channels to get to new customers. Thus, analysis of channels that suit one's products and customers is of utmost importance.

There are typically three channels that should be considered: sales channel, product channel and service channel.

- ◆ The sales channel These are the intermediaries involved in selling the product through each channel and ultimately to the end user. The key question is: Who needs to sell to whom for your product to be sold to your end user? For example, many fashion designers use agencies to sell their products to retail organizations, so that consumers can access them.
- ◆ The product channel The product channel focuses on the series of intermediaries who physically handle the product on its path from its producer to the end user. This is true of Australia Post, who delivers and distributes many online purchases between the seller and purchaser when using eBay and other online stores.
- ◆ The service channel The service channel refers to the entities that provide necessary services to support the product, as it moves through the sales channel and after purchase by the end user. The service channel is an important consideration for products that are complex in terms of installation or customer assistance. For example, a Bosch dishwasher may be sold in a Bosch showroom, and then once sold it is installed by a Bosch contracted plumber.

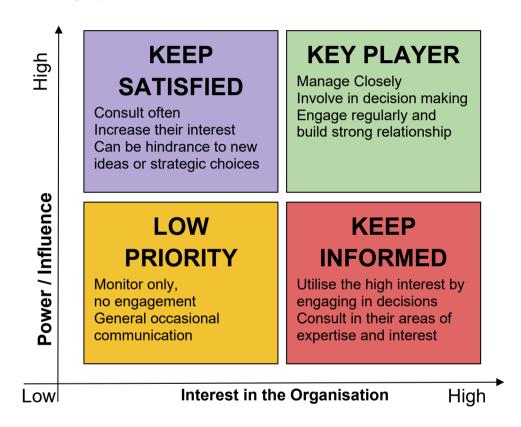
OR

Mendelow's Matrix can be used effectively to analyze and manage stakeholders through a grid-based approach by the following steps:

- 1. Identify Stakeholders: Begin by identifying all relevant stakeholders for your project or organization. This includes individuals, groups, or organizations that may be impacted by or have an impact on your activities.
- 2. Assess Power and Interest: For each stakeholder, assess their power to influence your project or organization and their level of

interest in its success. Power can be assessed based on factors such as authority, resources, and expertise, while interest can be gauged by their level of involvement, expectations, and potential benefits or risks.

3. Plot Stakeholders on the Grid: Create a grid with Power on one axis and Interest on the other. Plot each stakeholder on the grid based on your assessment. Stakeholders with high power and high interest are placed in the "Key Players" quadrant, those with high power but low interest are in the "Keep Satisfied" quadrant, those with low power but high interest are in the "Keep Informed" quadrant, and those with low power and low interest are in the "Low Priority" quadrant.



- **4. Develop Strategies for each Quadrant:** Based on the placement of stakeholders in the grid, develop specific strategies for managing each quadrant:
 - Key Players: Fully engage with these stakeholders, seek their input, and keep them informed. They are crucial for the success of your project, so their needs and expectations should be a top priority.
 - Keep Satisfied: These stakeholders have significant power but may not be as interested in your project. Keep them satisfied by providing regular updates and addressing any concerns they may have to prevent them from becoming detractors.

- **Keep Informed:** While these stakeholders may not have much power, they are highly interested in your project. Keep them informed to ensure they remain supportive and to leverage their insights and feedback.
- Low Priority: These stakeholders have low power and interest. Monitor them for any changes but allocate minimal resources to managing their expectations.
- **5. Monitor and Adapt:** Continuously monitor the power and interest of stakeholders and adjust your strategies accordingly. Stakeholders may move between quadrants based on changing circumstances, so it's important to remain flexible and responsive.

By using Mendelow's Matrix as a grid-based tool, you can effectively analyze and manage stakeholders by tailoring your engagement strategies to their specific needs and expectations, ultimately increasing the likelihood of project success.