FINANCIAL MANAGEMENT AND BUSINESS DATA ANALYTICS

Time Allowed: 3 Hours Full Marks: 100

The figures in the margin on the right side indicate full marks.

SECTION – A (Compulsory)

1. Choose the correct option from the four alternatives given: [15 × 2 = 30]

(i) Time value of money facilitates comparison of cash flows occurring at different time periods by _____.

A. compounding all cash flows to a common point of time
B. discounting all cash flows to a common point of time
C. using either (A) or (B)
D. neither (A) nor (B)

(ii) How much amount should an investor invest now in order to receive five annuities starting from the end of this year of ₹ 10,000 if the rate of interest offered by bank is 10% per annum?

A. ₹40,000
B. ₹45,000
C. ₹37,900
D. None of the above

(iii) _____ is the annual growth of Investment over a specific period of time.

A. Perpetuity
B. CAGR
C. Annuity
D. None of the above

(iv) _____ are the business organizations that act as mobilisers of savings and as purveyors of credit.

A. Financial Institution
B. Banking Institution
C. Financial Intermediaries
D. Non-Banking Financial Institution

(v) OASIS committee has given recommendations in the area of

A. Pension Policy
B. Hedge Funds
C. Private Equity Funds
D. Venture Capital

(vi) Working Capital Turnover measures, the relationship of Working Capital with:

A. Fixed assets
B. Sales
C. Purchases
D. Stock

(vii) DuPont Analysis deals with:

A. Analysis of current assets
B. Analysis of profit
C. Capital budgeting
D. Analysis of fixed assets

(viii) H Ltd. raised a debt of ₹50 lakhs on the terms that interest shall be payable at prime lending rate of bank plus 3%. The prime lending rate of the bank is 7%. Calculate the cost debt assuming that the corporate rate of tax is 35%.

A. 5.5%
B. 6.5%
C. 7.5%
D. 8.5%

(ix) Which of the following is the most expensive source of capital?

A. New equity shares
B. New preference shares
C. New debts
D. Retained earnings

(x) K Ltd. is considering an investment proposal involving an initial cash outlay of ₹ 20,00,000. The proposal has an expected life of 7 years and zero salvage value. At a required rate of return of 12%, the proposal has a profitability index of 1.182. Calculate the present value of cash inflows. The present value of an annuity of ₹ 1 for 7 years at 12% discount is 4.5638.

A. ₹ 22,64,000
B. ₹ 23,70,000
C. ₹ 23,64,000
D. ₹ 22,70,000

(xi) Capital budgeting is a part of:

A. Investment decision
B. Working capital management
C. Marketing management
D. Capital structure

(xii) Average collection period is 2 months, cash sales and average receivables are ₹5,00,000 and ₹6,50,000 respectively. The sales amount would be:

A. ₹40,00,000
B. ₹42,00,000
C. ₹44,00,000
D. ₹48,50,000

(xiii) A _____ net working capital will arise when current assets exceed current liabilities.

A. Summative
B. Negative
C. Excessive
D. Positive

(xiv) The probability density function describes:

A. the characteristics of a non-random variable.
B. the characteristics of a random variable.
C. the characteristics of a non-random constant.
D. the characteristics of a random constant.

(xv) Maps may be used for displaying:

A. Pin code
B. Country name
C. State abbreviation
D. All of the above

Answer:

Question No.	Correct Option
(i)	C
(ii)	C [10000 x 3.79]
(iii)	B
(iv)	A
(v)	A
(vi)	B
(vii)	B
(viii)	B [(7 + 3) % x (1 - 0.35)]
(ix)	A
(x)	C [200000 x 1.182]
(xi)	A
(xii)	C [650000 x (12/2) + 500000]
(xiii)	D
(xiv)	B
(xv)	D

Section – B

(Answer any five questions from the following. Each question carries 14 marks) **[5 × 14 = 70]**

2. (a) What do you mean by Treasury Bills? Discuss its features. **[7]**

(b) Briefly discuss the steps of data mining. **[7]**

Answer:

(a) Treasury bills are short-term instruments issued by the Reserve Bank on behalf of the government to tide over short-term liquidity shortfalls. This instrument is used by the government to raise short-term funds to bridge seasonal or temporary gaps between its receipts (revenue and capital) and expenditure. They form the most important segment of the money market not only in India but all over the world as well.

T-bills are repaid at par on maturity. The difference between the amount paid by the tenderer at the time of purchase (which is less than the face value) and the amount received on maturity represents the interest amount on T-bills and is known as the discount. Tax deducted at source (TDS) is not applicable on T-bills.

Features of T-bills

(i) They are negotiable securities.

(ii) They are highly liquid as they are of shorter tenure and there is a possibility of inter-bank repos in them.

(iii) There is an absence of default risk.

(iv) They have an assured yield, low transaction cost, and are eligible for inclusion in the securities for SLR purposes.

(v) They are not issued in scrip form. the purchases and sales are affected through the subsidiary general ledger (SGL) account.

(vi) At present, there are 91-day, 182-day, and 364-day T-bills in vogue. All three tenures of Treasury Bills are auctioned by the RBI on a weekly basis, with the bidding process taking place every Wednesday.

(vii) Treasury bills are available for a minimum amount of ₹25,000 and in multiple thereof.

(b) Data mining typically involves four steps: establishing objectives, acquiring and preparing data, implementing data mining techniques, and assessing outcomes.

(i) Setting the business objective:

This might be the most difficult element in the data mining process, yet many organisations spend inadequate effort on it. Together, data scientists and business stakeholders must identify the business challenge, which informs the data queries and parameters for a specific project.

(ii) Preparation of data:

Once the scale of the problem has been established, it is simpler for data scientists to determine which collection of data will assist the company in answering crucial questions. Once the pertinent data has been collected, it will be cleansed by eliminating any noise, such as repetitions, missing numbers, and outliers.

Based on the dataset, an extra step may be done to minimize the number of dimensions, as an excessive amount of features might slow down any further calculation.

(iii) Model building and pattern mining:

Data scientists may study any intriguing relationship between the data, such as frequent patterns, clustering algorithms, or correlations, depending on the sort of research. While high frequency patterns have larger applicability, data variations can often be more fascinating, exposing possible fraud areas.

Depending on the available data, deep learning algorithms may also be utilised to categorise or cluster a data collection.

(iv) Result evaluation and implementation of knowledge:

After aggregating the data, the findings must be analysed and understood. When completing results, they must be valid, original, practical, and comprehensible. When this criterion is satisfied, companies can execute new strategies based on this understanding, therefore attaining their intended goals.

3. (a) A Ltd. provides you following information:

(i) Current Ratio	**2.5**
(ii) Liquid Ratio	**1.5**
(iii) Proprietary Ratio	
(Fixed Assets/Proprietors' Funds)	**0.75**
Working Capital	**₹ 60,000**
Reserves and Surplus	**₹ 40,000**
Bank Overdraft	**₹ 10,000**

There is no long-term loan or fictitious assets. As a Cost and Management Accountant you have to calculate Current Assets and Current Liabilities and also calculate Stock Value. [7]

(b) From the following summary cash account of P Ltd., prepare a Cash Flow Statement (as per AS 3) using the direct method for the current year ended March 31, 2025.

Summary Cash Account
For the year ended on 31.03.2025

	₹		₹
Opening Cash balance	**1,00,000**	**Payment to suppliers**	**40,00,000**
Issue of Preference Shares	**6,00,000**	**Purchase of furniture**	**4,00,000**
Collection from Customers	**56,00,000**	**Payment of overhead**	**4,00,000**
Sale of machinery	**2,00,000**	**Payment of Salaries**	**2,00,000**
		Payment of taxation	**5,00,000**
		Dividend paid	**1,00,000**
		Bank loan repaid	**6,00,000**
		Closing cash balance	**3,00,000**
	65,00,000		**65,00,000**

[7]

Answer:

(a) 1. Calculation of Current Assets and Current Liabilities:

Current Ratio = 2.5 (given)

Current Ratio = Current Assets /Current Liabilities

or, 2.5 = CA/CL

CA = 2.5CL

Again,

Working Capital = Current Assets - Current Liabilities

or, 60,000 = 2.5CL – CL

or 60,000 = 1.5 CL

CL = $\frac{60,000}{1.5}$ = ₹40,000

Therefore, Current Liabilities are ₹ 40,000 and Current Assets = 2.5 x 40,000 = ₹1,00,000

2. Calculation of Stock:

Liquid Ratio = $\frac{Liquid/Quick\ Assets}{Current\ Liabilities} = 1.5\ (given)$

or, 1.5 = $\frac{Quick\ Assets}{40,000}$

or Quick Assets = ₹60,000

or Quick Assets = Current Assets - Stock

or 60,000 = 1,00,000 - Stock

or Stock = 1,00,000 - 60,000 = ₹40,000

(b)

Cash Flow Statement
For the year ended on 31.03.2025

Particulars		₹	₹
Cash Flow from Operating Activities			
Collection from Trade Receivables			56,00,000
Less: Paid to suppliers		40,00,000	
Less: Payment of salaries		2,00,000	
Less: Payment of overhead		4,00,000	46,00,000
Cash Generated from Operations			10,00,000
Less: Payment of Income Tax			5,00,000
	(A)		5,00,000
Cash Flow from Investing Activities			
Sale of machinery		2,00,000	
Purchase of furniture		(4,00,000)	
	(B)		(2,00,000)
Cash Flow from Financing Activities			
Issue of preference shares			
Bank loan repaid			
Dividend paid		6,00,000	
	(C)	(6,00,000)	(1,00,000)
Net change in cash and cash equivalent (A+B+C)		(1,00,000)	2,00,000
Add: Opening Cash Balance			1,00,000
Closing Cash Balance			3,00,000

4. (a) The income statements of a concern for the year ending on 31st December, 2024 and 2025 are given below. Prepare a Comparative Income Statement. (Figures in ₹ '000)

Particulars	2024	2025
Net sales	**1890**	**2500**
Cost of goods sold	**1240**	**1570**
Operating expenses:		
Office and administrative expenses	**180**	**210**
Selling and distribution expenses	**90**	**104**
Non-operating expenses:		
Interest paid	**50**	**70**
Income tax	**110**	**120**

[7]

(b) J Ltd. has the following capital structure and after-tax costs for the different sources of funds used:

Source of Funds	Amount. (₹)	Proportion (%)	After-tax Cost (%)
Debt	**4,50,000**	**30**	**7**
Preference Capital	**3,75,000**	**25**	**10**

Source of Funds	Amount. (₹)	Proportion (%)	After-tax Cost (%)
Equity Capital	6,75,000	45	15
	15,00,000	100	

(i) **As a Cost and Management Accountant you are required to calculate the weighted average cost of capital using book-value weights.**

(ii) **J Ltd. wishes to raise further ₹ 6,00,000 for the expansion of the project as below:**

Debt **₹ 3,00,000**

Preference Capital **₹ 1,50,000**

Equity Capital **₹ 1,50,000**

Assume that specific costs do not change. Calculate the weighted marginal cost of capital. **[7]**

Answer:

(a)

Comparative Income Statement

For the year ended on 31st December 2024 and 2025 (Fig in '000)

Particulars	2024 (₹)	2025 (₹)	Absolute Change (₹)	% Change
Net sales	1890	2500	610	32.28
(-) Cost of goods sold	1240	1570	330	26.61
Gross profit	650	930	280	43.07
Operating expenses:				
Office and administrative expenses	180	210	30	16.67
Selling and distribution expenses	90	104	14	15.56
Total operating expenses	270	314	44	16.3
Operating profit	380	616	236	62.10
Non-operating expenses: Interest paid	50	70	20	40
PBT	330	546	216	65.45
(-) Income tax	110	120	10	9.09
PAT	220	426	206	93.64

(b) **(i)**

Computation of Weighted Average Cost of Capital (WACC)			
Source of Funds	Proportion (%) (W)	After tax cost (%) (X)	Weighted Cost % (XW)%
Debt	30	7	2.10
Preference Capital	25	10	2.50
Equity Capital	45	15	6.75
Weighted Average Cost of Capital (WACC)			11.35%

(ii)

Computation of Weighted Marginal Cost of Capital (WMCC)			
Source of Funds	Marginal Weights Proportion (%) (W)	After tax cost (%) (X)	Weighted Marginal Cost (%)
Debt	50	7	3.50
Preference Capital	25	10	2.50
Equity Capital	25	15	3.75
Weighted Marginal Cost of Capital (WMCC)			9.75%

5. (a) M Ltd. is considering the introduction of a new product. It is estimated that profits before depreciation would increase by ₹ 60,000 each year for first four years and ₹ 30,000 each for the remaining period. An advertisement cost of ₹ 10,000 is expected to be incurred in the first year, which is not included in the above estimate of profits. The cost will be admissible for tax purpose in the first year.

A new plant costing ₹ 1,00,000 will be installed for the production of the new product. The salvage value of the plant after its life of 10 years is estimated to be ₹ 20,000. A working capital investment of ₹ 10,000 will be required in the year of installing the plant and a further ₹ 7,500 in the following year. The company's tax rate is 30% and it claims written down value depreciation at 33.33%. If the company's required rate of return is 20%, should the company introduce the new product? Ignore tax effect on Profit/Loss on sale of asset. [7]

(b) P Ltd. requires an initial investment of ₹ 1,00,000. The estimated net cash flow are as follows: (Figures in ₹)

Year	1	2	3	4	5	6	7	8	9	10
NCF	17,500	17,500	17,500	17,500	17,500	20,000	25,000	37,500	25,000	10,000
PVIF 14%)	0.877	0.769	0.675	0.592	0.519	0.456	0.4	0.351	0.308	0.27
PVIF 15%)	0.87	0.756	0.658	0.572	0.497	0.432	0.376	0.326	0.284	0.247

Calculate (*i*) Pay-back period and (*ii*) Internal Rate of Return. [7]

Answer:

(a) Calculation of total PV

Year	PBD	Dep.	PBT	PAT	CF	PVIF	PV
1	50000	33333	16667	11667	45000	0.833	37485
2	60000	22222	37778	26445	48667	0.694	33775
3	60000	14815	45185	31630	46445	0.579	26892
4	60000	9877	50123	35086	44963	0.482	21672
5	30000	6585	23415	16391	22976	0.402	9236
6	30000	4390	25610	17927	22317	0.335	7476

Year	PBD	Dep.	PBT	PAT	CF	PVIF	PV
7	30000	2927	27073	18951	21878	0.279	6104
8	30000	1951	28049	19634	21585	0.233	5029
9	30000	1301	28699	20089	21390	0.194	4150
10	30000	867	29133	20393	21260	0.162	3444
10	Working capital released				17500	0.162	2835
10	Scrap value				20000	0.162	3240
	Total PV of Inflows						161338

(Note: Profit for the year 1 has been taken as ₹50,000 i.e., ₹60,000 – 10,000. The amount of advertisement expenses of ₹10,000 has been deducted to find out net cash inflow for that year.)

Present Value of Outflows:

Initial outflow	₹ 1,00,000
Working Capital Required at T_o	₹10,000
Working Capital required at T_1 (₹7,500×.833)	₹6,248
	₹1,16,248

NPV = PV of Inflows – PV of Outflows

= ₹161338 – ₹116248

= ₹45,090

Comment: The proposal has a positive NPV and hence may be acceptable.

(b) (i) Payback Period:

Initial outlay ₹ 1,00,000

Cashflows for 5 years ₹ (17,500 + 17,500 + 17,500 + 17,500 + 17,500) = ₹ 87,500

Balance outlay = ₹1,00,000 – 87,500 = ₹12,500

Cashflow for year 6 = ₹ 20,000

Therefore, Payback period = 5 years + 12500/20000 = 5.625 years.

(ii) Internal Rate of Return (IRR)

So, in order to find out IRR, the cash flows may now be discounted at say 14% and 15%, as follows:

Year	Cashflows	PVIF (14%)	PV	PVIF (15%)	PV
1	17,500	0.877	15347.5	0.87	15225
2	17,500	0.769	13457.5	0.756	13230
3	17,500	0.675	11812.5	0.658	11515
4	17,500	0.592	10360	0.572	10010
5	17,500	0.519	9082.5	0.497	8697.5

Year	Cashflows	PVIF (14%)	PV	PVIF (15%)	PV
6	20,000	0.456	9120	0.432	8640
7	25,000	0.4	10000	0.376	9400
8	37,500	0.351	13162.5	0.326	12225
9	25,000	0.308	7700	0.284	7100
10	10,000	0.27	2700	0.247	2470
Total			102742.50		98512.50
(-) Initial outlay			100000		100000
NPV			2742.50		(-) 1487.50

At 14% NPV is ₹2742.50, and at 15% NPV is ₹ (–) 1487.50

The IRR may be found by interpolating between 14% and 15%

as follows:

IRR = 14% + 2742.50/[2742.50 – (-1487.50)] = 14% + 0.65 = 14.65%.

6. (a) The following information has been provided by C Ltd.

Expected production and sales 1,44,000 units.

Analysis of cost and sales	**₹**
Raw materials	**90 per unit**
Direct Labour	**40 per unit**
Overheads	**80 per unit**
Total costs	**210 per unit**
Profit	**30 per unit**
Selling Price	**240 per unit**

Additional information:

(i) Raw materials are in stock for 2 months.
(ii) Production process 4 weeks. The degree of completion 50%.
(iii) Finished goods in store 1 month.
(iv) Credit allowed to debtors 2 months.
(v) Credit allowed by suppliers 1 month.
(vi) Lag in payment of wages and overheads is 1.5 weeks.
(vii) 20% of the output is sold against cash.
(vii) Expected cash to be kept ₹2,00,000.
(viii) Take 52 weeks per annum.

Prepare a statement showing the working capital requirement of the company. [7]

(b) D Ltd. has a standard deviation of monthly net cash flows of ₹ 400. Its transaction cost of converting cash into marketable securities is ₹ 5 and the interest is 2% per month. The minimum cash balance required is ₹200. Infer the Upper Limit, Lower Limit and Return Point for the firm. [7]

Answer:

(a)

Statement showing working capital requirement

Particulars	₹
Current Assets:	
Stock of raw materials (144000 x 90 x 2/12)	21,60,000
WIP (144000 x 210* x 4/52 x 50%)	11,63,077
Finished goods (144000 x 210 x 1/12)	25,20,000
Debtors (144000 x 240 x 2/12 x 0.80)	46,08,000
Cash balance	2,00,000
(A)	1,06,51,077
Current Liabilities:	
Creditors of raw materials (144000 x 90 x 1/12)	10,80,000
Creditors for wages and overheads (144000 x (40+80) x 1.5/52)	4,98,462
(B)	15,78,462
Net Working Capital (A – B)	90,72,615

*(90+40+80)

(b) Given,

Transaction cost (c) = ₹5 per transaction

Variance of monthly cash flows (σ^2) = $(400)^2$ = ₹160000

Interest cost (k) = 2% per month

Minimum cash balance i.e. Lower limit (L) = ₹200

So, optimum cash balance (Z) = $\sqrt[3]{\frac{3\,c\sigma^2}{4k}} = \sqrt[3]{\frac{3 \times 5 \times 160000}{4 \times 0.02}}$ = ₹311

The relevant limits can be ascertained as follows:

Lower limit, L = ₹200

Z = ₹311

Return Point, R = Z + L = ₹511

Upper Limit, U = 3Z + L = ₹1,133

7. (a) H Ltd., is expecting an annual EBIT of ₹ 1 lakh. The company has ₹ 4 lakhs in 10% debentures. The equity capitalization rate is 12.5%. The company decides to raise ₹ 1 lakh by issue of 10% debentures and use the proceeds thereof to redeem equity shares. As a Cost and Management Accountant you are required to calculate the total value of the firm and also the overall cost of capital under the existing and proposed plan. [7]

(b) K Ltd. has sales of ₹ 75,00,000, variable cost of ₹ 42,00,000 and fixed cost of ₹ 6,00,000. It has a debt of ₹45,00,000 at 9% and equity of ₹ 55,00,000.

Based on the above information, answer the following:

(i) Calculate firm's ROI?

(ii) Does it have favourable financial leverage? Examine

(iii) If the firm belongs to an industry whose asset turnover is 3, does it have a high or low asset leverage? Analyze

(iv) Calculate the operating, financial and combined leverages of the firm? [7]

Answer:

(a)

Statement Showing the Value of the Firm under NI Approach

Particulars	Existing	Proposed
Earnings before Interest & Tax (EBIT)	100000	100000
Less: Interest on Debentures	40000 (400000 x 10%)	50000 (500000 x 10%
EBT	60000	50000
Equity Capitalization Rate (k_e)	12.5%	12.5%
Market Value of Equity (E) = EBT/k_e	480000	400000
Market Value of Debt (D)	400000	500000
Total Value of Firm (V)	880000	900000
Overall cost of Capital (K_0)		
Ke x E/V + Kd x D/V	11.36%	11.11%

Comment: The above calculations make it clear that raising of additional debt has increased the total value of the firm and reduced the overall cost of capital.

(b) Calculation of EBT of K Ltd.

Sales	₹ 75,00,000
Less: Variable Cost	42,00,000
Contribution	33,00,000
Less: Fixed Cost	6,00,000
EBIT	27,00,000
Less: Interest at 9% on Debt ₹ 45,00,000	4,05,000
EBT	22,95,000

(i) ROI = $\frac{EBIT}{Capital\ Employed}$ x100 = $\frac{EBIT}{DEBT+EQUITY}$× 100

= ₹ $\frac{27,00,000}{1,00,00,000}$× 100 = 27%

(ii) The return on investment at 27% is higher than the interest payable on debt at 9%. So, the firm has a favourable financial leverage.

(iii) Asset Turnover = $\frac{Net\ Sales}{Total\ Assets}$

Firm's Assets Turnover is = $\frac{75,00,000}{1,00,00,000}$ = 0.75

The industry average is 3. Hence, K Ltd a low asset turnover ratio.

(iv) Operating Leverage = $\frac{Contributiom}{EBIT}$ = $\frac{33,00,000}{27,00,000}$ = 1.2222

Financial Leverage = $\frac{EBIT}{EBT}$ = $\frac{27,00,000}{22,95,000}$ = 1.1764

Combined Leverage = $\frac{Contribution}{EBT}$ = $\frac{33,00,000}{22,95,000}$ = 1.438

or, Combined Leverage = $Operating\ Leverage \times Financial\ Leverage$

= 1.2222 x 1.1764 = 1.438

8. (a) Describe by Data Ethics? Discuss the five basic principles of Data Ethics that a business organisation should follow. [7]

(b) Data visualisation helps finance professional in their Analytics efforts. Summarize the point to be kept in mind by finance professional while investigating? [7]

Answer:

(a) Data analytics can help in decision making process and make an impact. However, this empowerment for business also comes with challenges. The question is how the business organizations can ethically collect, store and use data? And what rights need to be upheld? Data ethics addresses the moral obligations of gathering, protecting and using personally identifiable information.

The five basic principles of data ethics that a business organization should follow are:

(i) Regarding ownership: The first principle is that ownership of any personal information belongs to the person. It is unlawful and unethical to collect someone's personal data without their consent. The consent may be obtained through digital privacy policies or signed agreements or by asking the users to agree with terms and conditions. It is always advisable to ask for permission beforehand to avoid

future legal and ethical complications. In case of financial data, some data may be sensitive in nature. Prior permission must be obtained before using the financial data for further analysis.

(ii) **Regarding transparency:** Maintaining transparency is important while gathering data. The objective with which the company is collecting user's data should be known to the user. For example, if the company is using cookies to track the online behaviour of the user, it should be mentioned to the user through a written policy that cookies would be used for tracking user's online behaviour and the collected data will be stored in a secure database to train an algorithm to enhance user experience. After reading the policy, the user may decide to accept or not to accept the policy. Similarly, while collecting the financial data from clients, it should be clearly mentioned that for which purpose the data should be used.

(iii) **Regarding privacy:** As the user may allow to collect, store and analyze the personally identifiable information (PII), that does not imply it should be made publicly available. For companies, it is mandatory to publish some financial information to public e.g. through annual reports. However, there may be many confidential information, which if falls on a wrong hand may create problems and financial loss. To protect privacy of data, a data security process should be in place. This may include file encryption and dual authentication password etc. The possibility of breach of data privacy may also be done through de- identifying a dataset.

(iv) **Regarding intention:** The intension of data analysis should never be making profits out of others weaknesses or for hurting others. Collecting data which is unnecessary for analysis should be avoided and it's unethical.

(v) **Regarding outcomes:** In some cases, even if the intentions are good, the result of data analysis may inadvertently hurt the clients and data providers. This is called disparate impact, which is unethical.

(b) All data visualisation isn't created equally engaging. When properly executed, it simplifies difficult topics. However, if data visualisations are executed improperly, they might mislead the audience or misrepresent the data.

Finance professionals who are investigating how data visualisation might help their analytics efforts and communication should keep the following in mind:

Know the objective: Before the development of great images, one must first grasp the objectives. HBR' Berinato suggests, first establishment of the information if it's conceptual or data-driven is required. Then specify if the objective is exploratory or declarative.

Always keep the audience in mind: Who views the data visualisations will determine the degree of detail required. For instance, finance data presentations for the C-suite require high-level, highly relevant information to aid in strategic decision-making. However, if one is delivering a presentation to 'line of

business' executives, delving into the deeper details might offer them with knowledge that influences their daily operations.

Invest in the best technology: There are a multitude of technological tools that make it simple to produce engaging visualisations in the current digital age. The firm should first implement an ERP that removes data silos and develops a centralised information repository. Then, look for tools that allows to instantly display data by dragging and dropping assets, charts, and graphs; offer search options and guided navigation to assist in answering queries; and enable any member of the financial team to generate graphics.

Improve the team's ability to visualize data: Most of the agile finance directors rank their team's data visualization abilities as good, compared to only twenty four percent of their counterparts, according to an AICPA survey, while everyone on the finance team can understand the fundamentals of data visualization, training and a shift in hiring priorities may advance the team's data visualization skills. Data visualizations may help the finance team to convey its strategic finding more effectively throughout the enterprises.