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Further, in the Elective Papers which are Case Study based, the solutions have been worked out on the basis of certain assumptions/views derived from the facts given in the question or language used in the question. It may be possible to work out the solution to the case studies in a different manner based on the assumptions made or views taken.

PAPER – 6A – RISK MANAGEMENT

The Question Paper comprises five case study questions. The candidates are required to answer any four case study questions out of five.

Answers in respect of Multiple-Choice Questions (MCQs) are to be marked on the OMR Answer Sheet as given on the Cover Page of the answer book.

Answer to MCQs, if written inside the descriptive answer book, will not be evaluated.

Candidates should answer the Case Study Questions as selected by them in totality i.e. MCQ as well as descriptive Question of the same Case Study Question.

Candidates are not permitted to answer MCQs of one Case Study Question and the descriptive questions of another Case Study Question and vice-versa.

Candidates may use calculator.

CASE STUDY: 1

INTRODUCTION

Organic farming is a method of agricultural cultivation mainly using bio fertilisers and organic pest control materials. This concept has been developed mainly due to the realisation of environmental and health issues caused by the sustained use of chemical pesticides and fertilisers. Though this type of farming is ecologically supportive, the outputs from these farms are lower when compared to other regular farms, thereby pushing-up the prices of the products sold.

FACTS OF THE CASE

Fresh Farms Limited (FPL) converted to organic method of farming ten years ago and has earned a good name in the local market. It produces sugarcane, cotton, pulses, medicinal plants and herbs, fruits, vegetables, and millets.

FPL is aware that (i) the cost of production is more by 25%, than compared to that of regular farming and (ii) they cannot increase the prices of the farm outputs beyond a certain level. The revenue for last year ended 31.03.2021 stood at ₹ 30 Crores. The cost cutting measures were employed but did not produce desired results. In some instances, the customers expressed dissatisfaction that the fruits they ordered for the festive season did not arrive in time.

An initial analysis of the operations revealed that various processes could be streamlined; better efficiency could be achieved by following the standards and procedures followed globally in this type of farming.

The Managing Director (MD) explained to all the board members that FFL would strive to innovate by exploring into newer methods of cultivation and thereby increasing the profitability.

He wanted the General Manager (GM) to prepare a report on the measures, risk factors and control measures to achieve the above objectives. ·

FFL has small offices in five neighbouring countries. Exports of products are made to these countries and receivables included amounts due from some foreign buyers. It was noticed that two export consignments valued at ₹ 25 lakhs were returned by the customs officials of the respective countries as relevant rules applicable to such exports were not strictly followed and issued notices to FFL that if such practice continued in future, they would blacklist FFL.

FFL's management has made a proposal to sell its accounts receivable at a discount to Modern Finance Limited (MFL), a financing company. Negotiations with MFL are going on.

As on last year ended on 31.03.2021, FFL has 225 employees on its salary roll. Most of the staff lacked motivation and there was not much of co-ordination among them. FFL's manager ***Mr. Shyam*** *stressed the need to adopt a systematic study of the various aspects of risk management. He wanted their executives to be aware of the potential risks and make them act proactively to achieve greater levels of efficiency.*

For fulfilling the statutory compliance requirements of a limited company, the Statutory Auditor, M/s X and Y Associates, were doing an audit of Internal Controls over Financial Reporting. They made an exception to the conduct of one of the directors who withdrew ₹ 50 lakhs towards his personal drawings, without the specific approval of the board.

Mr. Rohan*, the Farms Manager, is generating scenarios for making an analysis, based on the stressful situations and events happened in the history of FFL.*

The risk management consultant, ***Ms. Bose*** *emphasised the importance of adopting an integrated risk management approach and further suggested to conduct a comprehensive risk evaluation exercise. This task was given to* ***Mr. Abdul****, the Risk Manager of the company.*

Ms. Bose cautioned FFL to exercise more control over its cyber activities in relation to its direct online selling of farm produce to the customers as organisations are becoming more susceptible to cyber-attacks. After performing various calculations, she observed that probability cyber-attack occurring to the online trading portal of FFL is 7% and if it occurs, then the estimated loss would be ₹ 2 Crores and she recommended strengthening the cyber security.

In the background of these facts, you are requested to answer the following questions:

Multiple Choice Questions

Choose the most appropriate answer from the given options.

(1.1) In pursuance to Mr. Shyam's suggestion, if potential risks are communicated to the executive management, the same would most likely be considered under:

(A) Risk Identification.

(B) Risk Analysis.

(C) Risk Assessment.

(D) Risk Mitigation.

(1.2) In the task given to Mr. Abdul, he would not consider:

(A) The importance of various activities to the business.

(B) The amount of control that FFL have over the cyber risks.

(C) Potential profits to the business of FFL.

(D) Benefits or opportunities presented by the cyber risks to FFL.

(1.3) Which among the following would be the most important responsibility of M/s X and Y Associates, the statutory auditors while doing audit of Internal Controls over Financial Reporting?

(A) Ascertaining segregation of duties in processes.

(B) Review of the Risk and Control Self-Assessment (RCSA) results.

(C) Recommend to the board and adoption of risk assessment and rating procedures.

(D) Disclosure of risk factors.

(1.4) FFL's proposal to MFL would be known as:

(A) Structural Method.

(B) Private Insurance.

(C) CDS contracts.

(D) Factoring.

(1.5) In Mr. Rohan's task, he will generate the scenarios based on the:

(A) Evaluation of the portfolio risk vulnerability.

(B) Events that will cause movements in the relative risk factors.

(C) Adverse risk factor movements.

(D) Development of events which start from one set of assumptions. ***(2 x 5 = 10 Marks)***

Descriptive Questions

(1.6) The General Manager (GM) needs your inputs for the report requested by the MD. You are required to prepare a report and submit it to the GM. ***(5 Marks)***

(1.7) What is an integrated risk management? Write a note on Key Quantitative Information pertaining to the year ended on 31.03 .2021 to the management. ***(3 Marks)***

(1.8) Briefly explain how other risks of FFL would contribute to reputational risks by drawing examples from the Case Study. ***(3 Marks)***

(1.9) *Discuss whether cyber-attacks on online platform of FFL be considered as single factor to determine its risk appetite and also explain the reasons for risk appetite to be integrated with the control culture of FFL.* ***(4 Marks)***

Answer

1.1 **(A)**

1.2 **(C)**

1.3 **(A)**

1.4 **(D)**

1.5 **(B)**

1.6 Report to GM

Strategic Objective	**Strategic Measure**	**Risk Factor**	**Control Measure**
Innovate by exploring into newer methods of cultivation	Selection of new ideas and methods	Failure of the new ideas and measures. May not yield expected results.	Close monitoring of the same and finding out and removing the pitfalls. Following meticulously the industry standards.
Increasing the profitability	Cost cutting. Increasing productivity and sales. Improved marketing	Failure of the same	Implementing and meticulously following effective Internal Controls.

Or

To

General Manager

Fresh Farm Ltd

Subject: - Report on Measures, Risk Factors and Control Measures

This report covers some of the key risks affecting the Company as illustrated below:

(a) **Economic Risk:** The company is facing economic risk due to:

(i) the cost of production is more by 25%, than compared to that of regular farming and,

(ii) they cannot increase the prices of the farm outputs beyond a certain level.

To control this risk the company should look for comparatively cheaper sources of raw material without compromising on quality aspect. Especially meeting commitment during the festive reason.

Further efficiency could be improved upon by following the standards and procedures which are followed globally.

(b) Foreign Exchange Risk: Since Company has offices in five neighboring countries and also export its products, hence the company is exposed to risk in fluctuation in foreign exchange rates.

The company should take steps to hedge its position e.g. taking position in derivatives market.

(c) Compliance Risk: Company is also facing Compliance Risk because two exports consignment valued at ₹ 25 lakhs were returned by the custom official of the respective countries as relevant rules applicable to such exports were not strictly followed and issued notice to Company if such practice in continued in future, they would blacklist the company.

Company should appoint some expert or forwarding, agent to get smoothen consignments of exports after complying with the required regulatory requirement.

(d) Liquidity Risk: Since, Company is in process of availing factoring services for its receivables, which clearly indicated company can face liquidity risk. Accordingly, company should accelerate collection of its receivables.

Further, to avoid risk. of Bad Debts it should go for Non-Recourse Factoring arrangements.

(e) Operational Risk: Conduct of one director of withdrawing ₹ 50 Lakhs towards his personal drawings without specific approval of Board is an indicator of operational risk.

Company should establish a proper internal Control system to control such type of risks.

(f) Cyber Risk: The probability of exposure of the company to cyber risk is quite higher. Not only that the loss due to such risk is also quite higher.

Accordingly, the company should take steps to strengthen the cyber security.

1.7 Integrated risk management is managing all the risks that relate to all activities carried out throughout FFL.

It is a structured form to assist organization in preparing for the worst case scenario while aspiring to be better faster and cheaper.

Key Quantitative Information (KQI) of earlier year:

(1) There were 225 employees

(2) The revenue stood at ₹ 30 crore.

(3) FFL operates in five countries.

(4) FFL has decided to innovate by exploring into newer methods of cultivation.

1.8 Normally, reputational risks are the result emanating from other risks.

For example:

❖ **Compliance Risk:** Two export consignments valued at ₹ 25 lakhs were returned by the customs officials of the respective countries as relevant rules applicable to such export were not strictly followed and issued notices to FFL that if such practice continued in future, they would blacklist FFL.

❖ **Governance Risk**: Misconduct of senior management: One of the directors who withdrew ₹ 50 lakhs towards his personal drawings, without the specific approval of the board.

❖ **Contractual Risk:** Not meeting customers' expectations and contractual requirements: In some instances, the customers expressed dissatisfaction that the fruits they ordered for the festive season did not arrive in time.

All these risks would result in causing reputational risks to FFL.

1.9

❖ There is a 7% the probability that the cyber risk will occur

❖ If cyber-attack occurs the loss would be ₹ 2 crores

❖ The online trading portal is susceptible to cyber - attack and therefore the cyber security is to be strengthened.

Risk appetite is not a single, fixed concept. There will be a range of appetites or ranges for different risks which need to be aligned and these appetites may vary over time. Like in sourcing decisions, the Board may set vendor business share limits as they would be make the entity dependent on few vendor companies that could eventually impact business continuity or range of quality defects.

Risk appetite must be integrated with the control culture of the organization. The Risk Management framework explores this by looking at both the propensity to take risk and the propensity to exercise control. The framework promotes the idea that the strategic level is proportionately more about risk taking than exercising control, while at the operational level the proportions are broadly reversed. Clearly the relative proportions will depend on the organization itself, the nature of the risks it faces and the regulatory environment within which it operates.

CASE STUDY: 2

FACTS OF THE CASE

Innovative. Agri Limited (IAL), based in NOIDA, is manufacturing and selling various agricultural tools, such as, sickle, axe, plough and various types of weeders for the past ten years. The revenue for the past three years is almost stagnant.

Mainly during October and November of every year, the farmers, especially in the northern part of the country bum their crop wastes. This is known as stubble burning and it causes a variety of problems - health problems to the public, environmental pollution, soil quality deterioration etc.

NEW PROPOSALS

IAL wants to explore the possibility of commencing manufacturing Stubble Removing Machine (SMR), which will greatly reduce the ill-effects of stubble burning. Currently SMRs are being sold for anywhere between ₹ 7 lakhs to 20 lakhs in the market. IAL came across a technology, which would substantially reduce the selling price to ₹ 4.5 lakhs including a trailer that would be attached to SMR. The technology can be bought for a one-time payment of ₹ 50 lakhs.

IAL intends to manufacture SMR under 'Make in India' scheme. Towards meeting the cost of SMR manufacturing project, IAL has decided to approach a bank for a term loan for fifteen years. On being satisfied, after the detailed workings and explanations of the project manager, the bank agreed in-principle to sanction the loan. The loan officer of the bank, ***Mr. Arun*** *analysed the internal factors affecting the credit risk of the bank while considering the loan proposal of IAL. To meet a portion of the cost of the project, IAL wants to sell some assets held in the form of market securities before their stated maturities and has entrusted this job to the Chief Financial Officer**, Mr. Ravi**.*

IAL is also having a proposal to manufacture and sell Plant Cutting Scissors. The estimated cost of the project is expected to be funded by the directors. The details of the project are as under:

Sr. No.	***Particulars***	***Figures***
1	*Initial Capital Cost*	*₹ 5 Cr.*
2	*Annual unit sales (nos.)*	*0.2 Cr.*
3	*Selling price per unit*	*₹ 120*
4	*Variable cost per unit*	*₹ 60*
5	*Fixed costs per year*	*₹ 1 Cr.*
6	*Discount Rate*	*7%*

OTHER OBSERVATIONS

It was decided to improve the risk management system of IAL. ***Mr. Raj****, the Internal Auditor was assigned the task of finding out the risk maturity level of IAL. He suggested to the management to consider forming a Risk Committee and an Audit Committee of the Board. He opined that (i) risk management of IAL would surely minimise the impact of risk on the business with the help of the Risk Committee and (ii) the Audit Committee would act on the terms of reference as specified by the Board and would primarily include evaluation of risk management systems including internal control system and internal audit.*

The Managing Director (MD) requested Mr. Raj to explain to him the concepts of (i) Magnitude of the Risk, (ii) Risk Perception, (iii) Cognitive Psychology and (iv) Emotional Intelligence. It was also decided to hold periodic meetings with the management and the departmental heads to capture learning and develop related recommendations at the end of a major activity or engagement.

Based on the facts given above, you are requested to answer the following questions:

Multiple Choice Questions

Choose the most appropriate answer from the given options.

(2.1) Mr. Raj would NOT refer to which of the following while conducting his assigned task?

(A) Risk appetite is defined and communicated across the organisation.

(B) Implement key practices to achieve immediate, tangible results.

(C) Control environment is strong including the tone from the top.

(D) Business objectives are defined and communicated.

(2.2) Which of the following would be considered by Mr. Arun in his analysis?

(A) Fluctuation in interest rates.

(B) Uncertainty associated with future level.

(C) Ignoring the purpose for which loan was sought by IAL.

(D) Fluctuation in Exchange Rates.

(2.3) While discharging the job entrusted to Mr. Ravi, which of the following risk would arise?

(A) Price Risk.

(B) Yield Curve Risk.

(C) Embedded Option Risk.

(D) Reinvestment Risk.

(2.4) Which of the following is not a common sound practice that is followed in respect of formation of Audit Committee as suggested by Mr. Raj?

(A) It has a chair who is an independent director.

(B) It includes members who are independent.

(C) Is required to review and approve IAL's risk policies.

(D) Is required to be a stand-alone committee.

(2.5) The periodic meeting to be held with the management and the various departmental heads would be called:

(A) Problem resolution.

(B) Clean wash.

(C) Meet wash.

(D) Hot wash. ***(2 x 5 = 10 Marks)***

Descriptive Questions

(2.6) In the case of proposal for manufacturing of the Plant Cutting Scissors project, you are required to:

(1) Calculate NPV of the Project and

(2) Compute the impact on the project's NPV considering a 3 per cent adverse variance in each variable. Which variable is having maximum effect, consider the life of the project as three years?

Note:

Year	*0*	*1*	*2*	*3*
PV Factor for 7%	*1.000*	*0.935*	*0.873*	*0.816*

Show your workings. ***(6 Marks)***

(2.7) Explain the risks you foresee and suggest remedial measures towards the same, in the proposal to manufacture SMR. ***(5 Marks)***

(2.8) What would be the explanations of Mr. Raj to MD on various concepts which he requested him to explain? ***(4 Marks)***

Answer

2.1 (B)

2.2 (C)

2.3 (A)

2.4 (C)

2.5 (D)

2.6 Working Notes:

Calculation of Net Cash Inflow per year

	Particulars	Amount (₹)
A	Selling price per unit	120
B	Variable cost per unit	60
C	Contribution per unit (A - B)	60
D	Number of units sold per year	0.20 Cr.
E	Total Contribution (C × D)	₹ 12 Cr.
F	Fixed cost per year	₹ 1.00 Cr.
G	Net cash inflow per year (E - F)	₹ 11.00 Cr.

1. Calculation of Net Present Value (NPV) of the Project

Year	Year Cash Flow (₹ in Cr.)	PV factor @ 7%	Present Value (PV) (₹ in Cr.)
0	(5.00)	1.000	(5.00)
1	11.00	0.935	10.285
2	11.00	0.873	9.603
3	11.00	0.816	8.976
Net Present Value			23.864

2. Sensitivity Analysis considering 3 % Adverse Variance in each variable

	Particulars	Base	Initial capital cost increased to ₹ 5.15 crore	Selling Price per Unit Reduced to ₹ 116.40	Variable Cost Per Unit increased to ₹ 61.80	Fixed Cost Per Unit increased to ₹ 1.03	Units sold per year reduced to 0.194 crore
		(₹)	(₹)	(₹)	(₹)	(₹)	(₹)
A	Selling price per unit	120	120	116.40	120	120	120
B	Variable cost per unit	60	60	60	61.80	60	60
C	Contribution per unit (A - B)	60	60	56.40	58.20	60	60
		(₹ in Cr.)	(₹ in Cr.)	(₹ in Cr.)	(₹ in Cr.)	(₹ in Cr.)	(₹ in Cr.)

D	Number of units sold per year (units in Crores)	0.20	0.20	0.20	0.20	0.20	0.194
E	Total Contribution (C × D)	12.00	12.00	11.28	11.64	12.00	11.64
F	Fixed cost per year	1.00	1.00	1.00	1.00	1.03	1.00
G	Net Cash Inflow per year (E - F)	11.00	11.00	10.28	10.64	10.97	10.64
H	PV of Net cash Inflow per year (G × 2.624)	28.864	28.864	26.975	27.919	28.785	27.919
I	Initial capital cost	5.00	5.15	5.00	5.00	5.00	5.00
J	NPV (H - I)	23.864	23.714	21.975	22.919	23.785	22.919
K	Percentage Change in NPV	-	-0.629%	-7.916%	-3.96%	-0.331%	-3.96%

The above table shows that by changing one variable at a time by 3% (adverse) while keeping the others constant, the impact in percentage terms on the NPV of the project can be calculated. Thus, it can be seen that the change in selling price has the maximum effect on the NPV by 7.916%.

2.7 The following risks can be faced in the proposal to manufacture SMR:

(1) Demand Forecasting: It is always not possible to exactly determine the demand of the product. The demand Forecast of IAL may be low or high depending on the forecasting model chosen.

Remedial measures: Ensuring that correct predictive model is used for forecasting and the data used for estimating the demand is accurate.

(2) Competition: Competitors may offer the same product at a lower price or may resort to aggressive selling.

Remedial Measures: By strengthening the marketing, providing a quality product and services, offering discounts are some of the aspects that IAL may follow to effectively face the competition.

(3) Collection from customers: The customer may not pay amounts within the due dates. It is always a risk to IAL.

Remedial measures: Offering incentives for prompt payments, closely following the credit period allowed are some of the remedial measures.

(4) Customer Support: There is always a risk that IAL may not provide a quality and timely after-sales service and the likelihood that the customers might be dissatisfied, and IAL may face reputational risk are some of the remedial measures.

Remedial Measures: Setting-up service standards, understanding customers' expectations and needs, intimation of due dates of service, ensuring the availability of the spare-parts, providing timely service, getting feedback, and removing the glitches in the service aspects.

(5) Product Quality: A defect in the product always poses a significant risk. The product may fill or may not perform according to the specifications.

Remedial Measures: Ensuring the quality control is working to ensure the sales of defect free products. Likewise, quality control mechanism is in place for the raw materials used in the production and checking at various stages of production.

2.8 The explanations on various concepts which MD has requested Mr. Raj to explain are as follows:

(i) Magnitude of Risk: The degree of uncertainty or likelihood of occurrence and impact of the risk outcome combined together.

(ii) Risk Perception: Belief (whether rational or irrational) held by an individual, group, or society about the chance of occurrence of a risk or about the extent, magnitude, and timing of its effect(s).

(iii) Cognitive Psychology: Cognitive Psychology is a science which deals with mental skills of memory, perception, reasoning, creativity, understanding and problem solving.

(iv) Emotional Intelligence: When people are anxious or in a state of emotion, they pay close attention to potential threats in the environment and are highly vigilant so as to preserve themselves and their resources.

CASE STUDY: 3

FACTS OF THE CASE

XYZ Auto Limited (XYZ) is a reputed car manufacturing company having its manufacturing operations in South India. It's manufacturing units are located near the east coast and well connected by different modes of transport. It has its presence in the small car - petrol & diesel segments. The present capacity of XYZ is 60,000 units per annum. It also markets all the related spares and has established its own service centres.

CHALLENGES FACED BY THE COMPANY

With the opening up of Indian economy and "Make in India" initiatives, global companies started establishing their operations in India and which is resulting in stiff competition in the domestic markets for the Company. These new companies have brought in the state of the art technology, with enhanced features for their cars. The Central & State governments have also provided various tax benefits to such entities for setting up their plants in India, which had a significant cost advantage to the new entities.

Other challenges faced by the Company in its operations include:

(i) Non-availability of the Labour as more than 50% of this temporary labour force which moved to their home towns due to COVID-19 pandemic is yet to come back,

(ii) change in the State government due to elections and likely change in government policies.

(iii) shortage of semi-conductor chips is forcing the company to reduce the production levels.

(iv) significant increase in the raw material prices, especially metals are impacting margins and

(v) increase in cost of petroleum products is forcing customers to buy Electric cars instead of petrol & diesel cars.

FUTURE PLANS OF THE COMPANY

XYZ is looking at modifying the design of the car and provide better features to meet the changing preferences of customers. An operational improvement team was set up to identify cost control measures and improve efficiencies in the production & supply chain activities. There is a plan to increase its annual capacity from 60,000 to 1,20,000 Units over the next three years. The additional capacity will be in electric car segment. This requires XYZ to set up a new production line. XYZ is planning to diversify into exports specifically in the electric car segment.

The cash outflow for setting up the new production line is estimated at ₹150 Crores; ₹80 Crores and ₹20 Crores in the year 1, year 2 and year 3 respectively. The incremental cash flows and probability for various scenarios are given below:

Year 3		*Year 4*		*Years 5*	
Cash flows	***Probability***	***Cash flows***	***Probability***	***Cash flows***	***Probability***
₹ Crores		***₹ Crores***		***₹ Crores***	
60.00	*0.50*	*75.00*	*0.40*	*105.00*	*0.55*
70.00	*0.30*	*85.00*	*0.25*	*120.00*	*0.25*
80.00	*0.15*	*95.00*	*0.20*	*130.00*	*0.15*
90.00	*0.05*	*105.00*	*0.15*	*145.00*	*0.05*

The CFO is planning to avail a separate term loan for this project from the financial institutions.

OTHER REGULATORY MATTERS

XYZ being a listed entity in India and is required to comply with all the listing agreement norms.

XYZ has junior team members responsible for internal audit and risk management activities and they report to the CFO of the Company. The CFO makes quarterly presentation to the Audit Committee and Risk Management Committee and shares internal audit and risk updates to the respective committees set up by the Board of Directors. During the recently held Board Meeting, the Board of Directors advised the management to establish, a robust Risk Management Process with enhanced focus on risk mitigation procedures and risk reporting requirements, considering the heightened business risks and the planned expansion activities.

ACTION TAKEN

Based on these directives from the Board of Directors, the Management team has taken the following actions:

A new Chief Risk Officer (CRO) has been appointed by the Company. All the risk management team members were transferred to a newly created Risk Management Department and were asked to report to the CRO.

The newly appointed CRO has engaged an external firm to advise the Company, to establish a comprehensive Enterprise Risk Management Framework. After a detailed evaluation, the external firm has provided a comprehensive report to set up the Risk Management framework including the roles and responsibilities of the Risk Management team members and the Risk Management Committee. The report made few suggestions including categorisation of identified risks as per COSO Framework and ERM implementation, as covered in ISO 31000.

Based on the facts given above, you are requested to answer the following questions:

Multiple Choice Questions

Choose the most appropriate answer from the given options.

(3.1) The report by external firm suggested various categories of risks under the COSO framework. Which category of risks is not coming within the purview of COSO Framework?

(A) Inefficiency and non-effectiveness of Operations

(B) Absence of key financial controls causing material errors in financial statements

(C) Human factors as strikes and lock-outs by trade unions and negligence of employees

(D) Non-compliance with laws and regulations

(3.2) The company has identified challenges faced by it. Amongst them external risks arise from events taking place outside the business functions. Which amongst the following is not considered as external risk?

(A) Factors leading to increase in raw material prices and changes in consumer preference.

(B) Technological factors, unforeseen changes in the techniques of production or distribution resulting into technological obsolescence, etc.

(C) Natural calamities such as floods, cyclone etc.

(D) Change in Government resulting in changes in policies, impacting the sale of product in a particular state.

(3.3) Which risk management technique involving a financial analytic tool shall be used by the CFO to evaluate the incremental future cash flows and for computing the benefits from risk management actions against the costs of the risk consequences are:

(A) Value at Risk.

(B) Capital Budgeting.

(C) Risk Score Cards.

(D) Risk Heat Maps.

(3.4) A report on the management of significant risks of the organisation and assurance on these risks being managed within the acceptable limits as laid down by the Board of Directors is:

(A) Risk report issued by the Chief Risk Officer.

(B) Compliance report issued by the Compliance Officer.

(C) Internal audit report issued by the Management Auditor

(D) Statutory audit report issued by the Statutory Auditor.

(3.5) Risk management steps included in the report submitted by external firm covers the following activities (1) Identify the Risk (2) Monitoring and review the Risk (3) Evaluation the Risk (4) Analyse the Risk and (5) Treating the Risk. The sequence of step-by-step process to deliver a simple and effective risk management process is:

(A) 1-4-3-5-2.

(B) 1-2-3-5-4.

(C) 1-3-2-4-5.

(D) 1-4-5-3-2. ***(2 x 5 = 10 Marks)***

Descriptive questions

(3.6) What are the aspects covered in the report on the Risk Management Framework issued by the external firm, which are key for the successful implementation and effective functioning of Enterprise Risk Management, taking into account the current risks faced by XYZ Auto Limited? ***(5 Marks)***

(3.7) The CFO and CRO had a discussion with respect to the risks relating to financial reporting covered in the report during a meeting between Finance team and Risk management team members. Elucidate the risks under discussions. ***(5 Marks)***

(3.8) Compute the Net Cash flows, from the expansion activities, taking into account the cash outflows and incremental cash inflows during the first five years of the project. You are required to evaluate the expected Net Present values for the incremental inflows while computed the net cash flows from the project. State the maximum cash flow required for the expansion project, upon summarising the cash flows at the end of each year.

Consider the following PV factors for computing the present value of cash inflows:

PV Factors	
Year 3	*0.7722*
Year 4	*0.7084*
Year 5	*0.6497*

(5 Marks)

Answer

3.1 (C)

3.2 (B)

3.3 (B)

3.4 (C)

3.5 (A)

3.6 Various aspects to be covered in the report on the Risk Management Framework issued by the external firm, which are key for the successful implementation and effective functioning of Enterprise Risk Management are as follows:

(1) Winning support and sponsorship from the Top management is a pre-cursor: The Board of directors should sponsor the ERM function and activities by providing the right focus, resources and attention for ERM. ERM must be truly enterprise wide, and understood and embraced by all personnel, and driven from the top through clear and consistent communication and messaging from the company's board to senior management and to the organization as a whole.

The Board needs to put in place an effective ERM leader who is widely respected across the organization and who has accepted responsibility for overall ERM leadership, resources and support to accomplish the effort.

(2) Building ERM using small but solid steps: Organisation can start with a simple process and build from there using incremental steps rather than trying to make a quantum leap to fully implement a complete ERM process.

By doing so, they are able to:

- Identify and implement key practices to achieve immediate, tangible results.
- Provide an opportunity to change and further tailor ERM processes.

(3) Focus on a simple Risk model with Small Number of Top Risks: The ERM team should identify small number of critical and strategic risks that can be managed, and then evolve from this start.

Focusing initially on a smaller, manageable number of key risks would also be beneficial in developing related processes such as monitoring and reporting for those specific risks. This focused approach also keeps the developing ERM processes simple and lends itself to subsequent incremental steps to expand the risk universe and ERM processes.

(4) Leverage Existing Resources: Organizations often discover that they can rely on their existing staffs, with the knowledge and capabilities relating to risks and risk management that can be effectively used to start the ERM process. For example, some organizations have used their Chief Audit Executive or their Chief Financial Officer as the catalyst to begin an ERM initiative. In other instances, organizations have appointed a management committee, sometimes headed by their Chief Finance Officer (CFO), to bring together a wide array of personnel from across the entity that collectively have sufficient knowledge of the organization's core business model and related risks and risk management practices to get ERM moving.

In addition, most organizations start their ERM effort without any specific enabling technology or automated tools other than basic spreadsheets and word-processing capabilities.

(5) Build on Existing Risk Management Activities: Existing functions such as internal audit, compliance, ethics and other support function could be leveraged to build on the ERM blocks and activities.

(6) Embed ERM into the Business Fabric of the Organization: ERM is a management process, ultimately owned by the board of directors and involves people at every level of the organization.

The comprehensive nature of the ERM process and its pervasiveness across the organization and its people provides the basis for its effectiveness.

ERM cannot be viewed or implemented as a stand-alone staff function or unit outside of the organization's core business processes. In some companies and industries, such as large banks, it is common to see a dedicated enterprise risk management unit to support the overall ERM effort including establishing ERM policies and practices for their business units.

(7) **Provide On-going ERM Updates and Continuing Education for Directors and Senior Management:** ERM practices, processes and information continue to evolve. Thus, it is important for directors and senior executives to ensure that they are receiving appropriate updates, new releases and continuing education on ERM, including information about regulatory requirements and best practices.

This information provides the opportunity for directors and senior management to update their risk management processes as they become aware of new or developing practices. This ongoing improvement process is particularly important with the increased focus on ERM by regulators, rating agencies, and the capital market authorities.

3.7 The various risks relating to financial reporting that can be covered in the report during a meeting between Finance team and Risk management team members are as under:

(a) *Changes in operating environment:* Changes in the regulatory or operating environment can result in changes in competitive pressures and significantly different risks.

(b) *New personnel:* New personnel may have a different focus on or understanding of internal control.

(c) *New or revamped information system:* Significant and rapid changes in information systems can change the risk relating to internal control.

(d) *Rapid growth:* Significant and rapid expansion of operations can strain controls and increase the risk of a breakdown in controls.

(e) *New technology:* Incorporating new technologies into production processes or information systems may change the risk associated with internal control.

(f) *New business models, products, or activities:* Entering into business areas or transactions with which an entity has little experience may introduce new risks associated with internal control.

(g) *Corporate restructurings:* Restructurings may be accompanied by staff reductions and changes in supervision and segregation of duties that may change the risk associated with internal control.

(h) *Expanded foreign operations*: The expansion or acquisition of foreign operations carries new and often unique risks that may affect internal control, for example, additional or changed risks from foreign currency transactions.

(i) *New accounting pronouncements*: Adoption of new accounting principles or changing accounting principles may affect risks in preparing financial statements.

Based on the above the CRO and CFO must have deliberated following aspects of related to risk.

(a) Financial risk relating to exports; Currency Risk; Customer Credit Risks; Country Risk etc.

(b) New technology adoption in the production process cost implications and payback.

(c) Imports of Chips from new vendors from different geographies and additional costs.

(d) Financial risks mitigation procedures.

3.8 The net cash flows from the expansion project:

Year 1	Year 2	Year 3	Total
150.00	80.00	20.00	230.00

Cash inflows:

Year 3			Year 4			Year 5		
Cash flows	**Prob.**		**Cash flows**	**Prob.**		**Cash flows**	**Prob.**	
₹ Crs.			**₹ Crs.**			**₹ Crs.**		
60.00	0.50	30.00	75.00	0.40	30.00	105.00	0.55	57.75
70.00	0.30	21.00	85.00	0.25	21.25	120.00	0.25	30.00
80.00	0.15	12.00	95.00	0.20	19.00	130.00	0.15	19.50
90.00	0.05	4.50	105.00	0.15	15.75	145.00	0.05	7.25
Total		67.50			86.00			114.50
PV Factor		0.7722			0.7084			0.6497
PV		52.12			60.92			74.39
PV of total Cash inflows =							₹ 187.43 Crs.	

Maximum actual funding requirement

	Outflows (₹ Crs)	Inflows (₹ Crs)	Net Flows (₹ Crs)	Cumulative cash flow (₹ Crs)
Year 1	150.00	------	(150.00)	(150.00)
Year 2	80.00	------	(80.00)	(230.00)
Year 3	20.00	52.12	32.12	(197.88)

Year 4	-------	60.92	60.92	(136.95)
Year 5	-------	74.39	74.39	(62.56)
Total	250.00	187.44	(62.56)	

The maximum funding requirement would ₹ 230 crores at the end of second year, since the cash inflows started to flow from the third year, which is higher than third year cash out flows.

CASE STUDY 4

FACTS OF THE CASE

An Indian IT Company (hereinafter referred as 'the Company') is engaged in providing software products and solutions to its clients. The Company specialises in digital transformation, under different platforms, The solutions include Artificial Intelligence, Machine Leaming, Robotic Process Automation, Chatbots, Block Chain and Cyber Security intelligence.

The software company also engages in training the employees of its clients, in the journey of digital transformation. The approach adopted by the Company is an unique business model which combines the engineering and industry experience to provide intelligent solutions including (i) Consolidate various IT tools/software programs into a single platform, (ii) minimal design changes in the front end, enabling the users to continue operating the systems in seamless manner and (iii) In-built analytics to help the users in self-learning and exception reporting.

The Company provides software solutions to clients located in India and in foreign countries. The Company deploys teams to various projects and provides both on-site & off-shore services to its clients.

The Company is a listed company in India as well as in United States of America (USA) and is required to comply with the listing agreements of both the countries. The company has a well-established Financial Reporting and Risk Management Frameworks. The Company's operations are exposed to large number of business and operating risks.

The Company is also having a subsidiary company in USA, from where software products are procured from the local vendors and sold to various clients along with software solutions. The subsidiary company, also sells its products to the Indian Holding Company. The arrangement for these sales of products is such that the changes in exchange rates are linked to the selling price of the products, either upwards or downwards.

ISSUES IDENTIFED

The Risk Management team along with the business teams carries out Country Risk Assessment and also evaluates risks associated with specific projects in each country. On a quarterly basis, the Chief Risk Officer (CRO) makes a presentation to the Risk Management

Committee with regard to the process followed, tools adopted and the results of such country risk assessments. The issues identified are:

(1) A project team of 25 members was deputed by the Company for providing on-site solutions to one of its client in USA. The team was on deputation for two years. Salaries and other related expenses for providing on-site solutions were paid in US Dollars by the Company. After a period of one year, couple of team members left the Company and taken employment in other Company for better career prospects in Canada. The Company was not ready to accept their resignations and these employees had challenges for getting relieved. After multiple rounds of discussions, the Company finally relieved them, after making certain deductions, as per the employment terms, from their full and final settlements.

These employees after getting relieved and joining the new Company have raised certain issues relating to the work ethics & experiences of the Indian IT Company in public forum and social media, which affected the morale of other team members who are continuing to work at the project site.

(2) The Company also provides on-site software services to its clients in the Middle-East, However, due to repeated terror attacks near the office of the Company and at residential colonies where its staff resides, the Company has decided to exit from that country and started providing off-shore services from India.

(3) Similarly, another team was working in an African country. The United States of America & European Union, have suddenly, imposed financial sanctions against the African country and restricted all financial transactions in US $. This would affect the collections of dues of the Company from the clients located in the African country. However, the Company, due to effective risk management practices, based on triggering events has sold the receivables to another party located in Europe at a discount.

(4) The Company has exposure to currencies of different countries. 80% of the Company's revenues are from clients situated outside India. The company takes forward & other hedging instruments to manage the net currency risks.

Based on the facts given above, you are requested to answer the following questions:

Multiple Choice Questions

(4.1) Adverse publicity regarding an entity's practices will lead to a loss of revenue and leads to litigation. The ex-employees view posted on social media about the Company's work ethics is affecting the work culture of the existing employees. Any such event which is detrimental to the business of the entity is considered as:

(A) Reputation risk.

(B) Strategic Risk

(C) Business Continuity risk.

(D) Governance risk.

(4.2) Exiting the activities which are giving rise to Business Risk by way of either exiting the service line or exiting the countries, or declining the expansion to a new geography or selling the current operations in a specific country, is the following type of risk response:

(A) Reduce.

(B) Avoid.

(C) Share.

(D) Accept.

(4.3) The purpose of Risk Evaluation by the Company at the Board Level is not to:

(A) Identify the probabilities of failures and threats.

(B) Calculate the exposure of failures and threats.

(C) Identify the hiring requirements of the Company for specific projects.

(D) Make control recommendations keeping the cost benefit analysis in mind.

(4.4) If the company has receivables of USD 50,000 and payables of ₹ 40,000, which of the following statement is not correct?

(A) Their settlement will affect the company's cash flow.

(B) It is not subject to transaction exposure.

(C) If the dollar appreciates relative to rupee, a cash gain occurs.

(D) If the dollar depreciates relative to rupee, a cash loss occurs.

(4.5) The Company sold its accounts receivable for one of its clients from the African country, to a third party located in a European country at a discount, to hedge the country risk and to facilitate timely recovery of over dues. This method of financing is considered as:

(A) Bill discounting.

(B) Packing credit.

(C) Factoring.

(D) Cash credit. ***(2 x 5 = 10 Marks)***

Descriptive questions

(4.6) Under the integrated reporting adopted by the Company, describe the matters covered with respect to the Company's governance structure to support its ability to create value in the short, medium and long term. ***(5 Marks)***

(4.7) Explain the procedures adopted by the business teams and risk management team of the Company, for carrying out the Country risk assessment. Also list the tools available for carrying out such assessment. ***(5 Marks)***

(4.8) *Explain briefly the various internal techniques adopted by the company to manage exposure to the foreign currency dues, citing examples from the Case Study.* ***(5 Marks)***

Answer

4.1 (A)

4.2 (B)

4.3 (C)

4.4 (B)

4.5 (C)

4.6 The various matters to be covered with respect to the Company's governance structure to support its ability to create value in the short, medium and long term are as follows:

- ❖ The **organization's leadership structure**, including the skills and diversity (e.g., range of backgrounds, gender, competence and experience) of those charged with governance and whether regulatory requirements influence the design of the governance structure.
- ❖ **Specific processes** used to make strategic decisions and to establish and monitor the culture of the organization, including its attitude to risk and mechanisms for addressing integrity and ethical issues
- ❖ **Particular actions** those charged with governance have taken to influence and monitor the strategic direction of the organization and its approach to risk management
- ❖ How the **organization's culture, ethics and values** are reflected in its use of and effects on the capitals, including its relationships with key stakeholders
- ❖ Whether the organization is **implementing governance practices** that exceed legal requirements
- ❖ The **responsibility** those charged with governance take for promoting and enabling innovation
- ❖ How **remuneration and incentives are linked to value creation** in the short, medium and long term, including how they are linked to the organization's use of and effects on the capitals.

4.7 The country risk is a major issue of concern in overall management of business. Broadly speaking the country risk management process involves the following steps:

(i) Identification of Risk: First and foremost, step in country risk management is identification of risk. The various quantitative and qualitative techniques can be used to identify the risks.

(ii) Analysis of Risk: Once the risk is identified the next step is analyse the same from various angles.

(iii) Evaluation of Risk Management Techniques: Evaluation of various techniques to manage the risk is carried out.

(iv) Selection of suitable techniques: Once various techniques have been evaluated next steps comes of selection of most suitable technique to manage the risk.

(v) Implementation of Techniques: The techniques to manage the risk are implemented.

(vi) Control: Once the selected techniques are implemented they need to be reviewed on periodic and if required they are revised.

The tools include Qualitative tools and Quantitative tools:

Qualitative Tools include Numeral Coding; Colour Coding; Combination of Numeral and Colour coding.

This is one of the simplest techniques for country risk assessment to rank the countries. The methods employed are:

(i) *Numeral Coding:* In this method, after considering various factors, a number is assigned to a country. While the highest number indicates lesser risk, the lowest number indicates higher risk.

(ii) *Colour Coding:* Different colours can be used to indicate the level of country risk. While Red Color indicates higher risk, Green Colour indicates a risk free zone.

(iii) *Combination of Numeral and Colour:* A combination of colour and numeral is also used to indicate relative level of country risk.

In addition to above, *Grade Based Rating* and *Event Driven* are also methods of country risk assessment. For example, the two countries engaged in war, may be considered as event driven risk.

Quantitative Tools are primarily related to economic measures such as GDP, Forex rates and services, FDI etc. Other numbers include Growth in Industrial Production, Population Growth, etc. Some of the indices that can be used for Country Risk Analysis are following:

1. Corruption Perception Index: Higher the number indicates the country is highly corrupt.
2. Democracy Index: The index is based on Electoral process pluralism, civil liberties, functioning of Government; Political participation and culture.
3. Gini Coefficient: It is one of the most popular index to gauge the rich-n-poor income countries.
4. Human Development Index: Published by UN rates, the countries on the basis of Education level; Literacy Rate; Income; Life Expectancy and Standard of Living

The other indices include Global Peace Index and freedom in the world.

4.8 Internal techniques explicitly do not involve transaction costs and can be used to offset the exposure completely or partially. These techniques can be further classified as follows:

(i) Invoicing in Domestic Currency: Sellers usually wish to sell in their own currency or the currency in which they incur cost. This avoids foreign exchange exposure but buyers' preferences may be for other currencies. Many markets, such as oil or aluminum, in effect require that sales be made in the same currency as that quoted by major competitors, which may not be the seller's own currency.

(ii) Leading and Lagging: Leading and Lagging refer to adjustments at the time of payments in foreign currencies. Leading is the payment before due date while lagging is delaying payment post the due date. These techniques are aimed at taking advantage of expected devaluation and/or revaluation of relevant currencies. Lead and lag payments are of special importance in the event that forward contracts remain inconclusive.

(iii) Netting: Netting involves associated companies, which trade with each other. The technique is simple. Group companies merely settle inter affiliate indebtedness for the net amount owing. Gross intra-group trade, receivables and payables are netted out.

Netting basically reduces the number of intercompany payments and receipts which pass over the foreign exchanges. Fairly straightforward to operate, the main practical problem in bilateral netting is usually the decision about which currency to use for settlement.

Netting reduces banking costs and increases central control of inter company settlements. The reduced number and amount of payments yield savings in terms of buy/sell spreads in the spot and forward markets and reduced bank charges.

(iv) Matching: Matching is a mechanism whereby a company matches its foreign currency inflows with its foreign currency outflows in respect of amount and approximate timing. Receipts in a particular currency are used to make payments in that currency thereby reducing the need for a group of companies to go through the foreign exchange markets to the unmatched portion of foreign currency cash flows.

(v) Price Variation: Price variation involves increasing selling prices to counter the adverse effects of exchange rate change. This tactic raises the question as to why the company has not already raised prices if it is able to do so. In some countries, price increases are the only legally available tactic of exposure management.

(vi) Asset and Liability Management: This technique can be used to manage balance sheet, income statement or cash flow exposures. Concentration on cash flow exposure makes economic sense but emphasis on pure translation exposure is misplaced. Hence our focus here is on asset liability management as a cash flow exposure management technique.

CASE STUDY 5

FACTS OF THE CASE

Robin is the managing director of Style Limited which was incorporated by his father twenty years back. The Company is in garment retail business and has a store in Pune. The store did not show expected growth in the initial years. However, when Robin took over as Managing Director, the Company has shown consistent profit during the past ten years. Robin believes that his store is one of the best managed in the city and he is considering now opening several new stores.

FUNDING REQUIREMENTS

When Robin's father started the store, most of the equity was financed by him and the remaining financing was arranged from personal loans from friends and family members. In order to open new stores Robin needs a bank loan. The bank will examine financial statements. Robin has asked you to analyse his financials.

For this purpose he has also gathered relevant information of a close competitor who is in the same business for the last twenty five years. Although Robin has tabulated some information as given below, he needs your support in calculating other missing figures.

Particulars	***Style Ltd.'s Store***	***Competitor***
Revenue	*INR 2,000 lakhs*	*INR 2,500 lakhs*
Net Income	*INR 60 lakhs*	-----
Return on Equity (ROE)	*22%*	-----
Net Profit Margin	*3%*	*6%*
Asset Turnover	*2*	*2*
Equity multiplier	--------	*2*
Debt Equity Ratio	*2*	-------

In addition to the above, the other key issue with which Robin is confronted with is determining appropriate level of current asset. He wants your input on the key factors that need to be considered for this purpose which he agreed to do so in the next meeting.

Recently one of his friends has advised Robin to revise credit payment period and receivable period in a manner that would increase value of Style Limited but Robin is also concerned about the asset-liability mismatch. In the next meeting he wants your inputs on the asset-liability mismatch.

MANAGEMENT ISSUES

As the level of operations is expected to significantly grow in the coming years, Robin has planned to have a robust risk management systems and procedures. Currently it is being done *in silos and also he is worried about the risk culture. There is no risk strategy in writing and also risk appetite statement has not been prepared and hence decisions are made without understanding the risk. The internal auditors have also pointed out number of irregularities with respect to dealing with the suppliers, customer management, inventory management, hiring of staff and response management. Currently, reward and consequences are not aligned and hence there is a tendency amongst employees to be ignorant about risk. Reinforcing risk culture is the top most agenda at this moment. Robin has approached you to take suggestions highlighting ways to reinforce risk culture in Style Limited.*

EXPLORING OVERSEAS MARKETS

Robin has extensive experience of Moscow & Russia markets and therefore, exploring the possibilities of opening one store in Moscow. He sees a huge opportunity there especially after recent conflict with Ukraine as most of the international brands have closed their operations. However, this decision would depend upon the analysis of related risks in opening a store in Moscow. Robin is looking your inputs on this account and also wants to know how Delphi technique can be used for political risk analysis purpose.

ACQUISITION PROPOSAL

Robin is also evaluating an opportunity to acquire a company named Start Ltd. which is in garment manufacturing. He has hired a registered valuer, Mr. Samal, to carry out valuation of equity shares of Start Ltd. The value per equity share of Start Ltd. as estimated by Mr. Samal is INR 1250. Before committing for the acquisition of Start Ltd. Robin wants to fully grasp the risk appetite and risk aversion. He also wants your help in estimating risk of bankruptcy of Start Ltd. He has gathered the following information for this purpose.

Equity 1000 (Face value: INR 10 each)	*INR 10,000*	*Goodwill*	*INR 20,000*
Retained Earnings (RE)	*86,750*	*Net Property Plant and*	*2,20,000*
Deferred Tax Liability	*15,250*	*Equipment (PPE)*	
Long-Term Debt	*1,80,000*	*Current Assets*	*1,60,000*
Total Current Liabilities (CL)	*1,20,000*	*Other Assets*	*12,000*
Total	***4,12,000***	***Total***	***4,12,000***

Last reported EBIT is INR 1,10,000 and Revenue is INR 9,00,000.

Based on the facts given above, you are requested to answer the following questions:

Multiple Choice Questions

(5.1) Which one of the following would be considered by you while deciding the appropriate level of current assets of Style Ltd.?

(A) A trade-off between equity and debt.

(B) A trade-off between short-term loan and long-term borrowing.

(C) A trade-off between profitability and risk.

(D) A trade-off between current assets and total asset.

(5.2) Robin wants to ensure that policy related to working capital management should not expose Style Ltd to the risk of insolvency. In your opinions which of the following asset-liability mix would lead to the greatest risk of insolvency?

(A) Lowering current liabilities and increasing current assets.

(B) Increasing both current assets and current liabilities.

(C) Exchanging short-term debt with equity.

(D) Increasing current liabilities, decreasing current assets and reducing long-term debt.

(5.3) A junior in your office has prepared a draft for your reference highlighting important points about risk appetite and risk aversion which he believes would be useful while preparing final notes for Robin. Which one of the following statement prepared by your junior is not correct?

(A) Risk appetite changes over time as it is typically subject to cyclical fluctuations.

(B) Risk aversion is relatively time-invariable degree of· defensive positioning in terms of investment.

(C) The sum total of risk appetite and risk aversion is equal to one.

(D) Risk aversion reflects the underlying attitude to all types of financial risk whereas can be subject to sharp short-term volatility.

(5.4) Which of the following combination of major risks that you would like to cover in your analysis which would help Robin in making decision about opening a store in Moscow?

(A) Financial, Regulatory and Political.

(B) Political, Financial and Accounting.

(C) Management, Cyber and Information.

(D) Management, Ethical and Political.

(5.5) Robin has asked you to use the Delphi technique for political risk analysis for evaluation of decision regarding opening a store in Moscow. In your opinion which one of the following is correct with respect to use of Delphi technique for political analysis?

(A) Visiting Moscow and making micro analysis.

(B) Using services of an expert from Moscow.

(C) Gaining the response of a panel of geographically dispersed independent experts.

(D) Delphi technique is a quantitative technique of risk analysis. ***(2 x 5 = 10 Marks)***

Descriptive Questions

(5.6) Using the data tabulated by Robin you are required to calculate the missing figures. Show your working. ***(5 Marks)***

(5.7) Based on the data given about Start Ltd., what would be your prediction about the bankruptcy in a short-term? ***(5 Marks)***

(5.8) As desired by Robin what would be your suggestions for reinforcing risk culture in Style Ltd. Robin also wants you to prepare a note on the role of the board and senior management in promoting sound risk culture. ***(5 Marks)***

Answer

5.1 (C)

5.2 (D)

5.3 (C)

5.4 (A)

5.5 (C)

5.6 Style Ltd.'s Store

(1) Equity Multiplier = 1 + Debt Equity Ratio = 3

Alternatively, it can also be computed as follows:

ROE = Asset Turnover x Equity Multiplier x Net Profit Margin

22% = 2 x Equity Multiplier x 3%

Equity Multiplier = 11/3

Competitor

(1) Net Income = 6% x INR 2,500 lakhs = INR 150 lakhs

(2) ROE = Asset Turnover x Equity Multiplier x Net Profit Margin

= 2 x 2 x 6% = 24%

(3) Debt Equity Ratio = 625/625 = 1

Equity = 150/24% = 625

Assets = 2500/ 2 = 1250

Debt = 1250 – 625 = 625

5.7 Prediction about the bankruptcy in a short-time can be predicted using Altman Z score as follows:

$Z = 1.2 \times X_1 + 1.4 \times X_2 + 3.3 \times X_3 + 0.6 \times X_4 + 1.0 \times X_5$

X_1 = working capital / total assets. Measures liquid assets in relation to the size of the company.

X_2 = retained earnings / total assets. Measures profitability that reflects the company's age and earning power.

X_3 = earnings before interest and taxes / total assets. Measures operating efficiency apart from tax and leveraging factors. It recognizes operating earnings as being important to long-term viability.

X_4 = market value of equity / book value of total liabilities. Adds market dimension that can show up security price fluctuation as a possible red flag.

X_5 = sales / total assets. Standard measure for total asset turnover (varies greatly from industry to industry).

$$Z = 1.2 \text{ x } \frac{40000}{412000} + 1.4 \text{ x } \frac{86750}{412000} + 3.3 \text{ x } \frac{110000}{412000} + 0.6 \text{ x } \frac{1250000}{315250} + 1.0 \text{ x } \frac{900000}{412000}$$

Z = 0.117 + 0.295 + 0.881 + 2.379 + 2.184

Z = 5.856

Since Z score exceeds 4.48. It can therefore be concluded that there is low risk of going bankrupt in short run.

Alternative Solution - *If students do not consider the Deferred Tax Liability as a part of Total Liabilities.*

$$Z = 1.2 \text{ x } \frac{40000}{412000} + 1.4 \text{ x } \frac{86750}{412000} + 3.3 \text{ x } \frac{110000}{412000} + 0.6 \text{ x } \frac{1250000}{300000} + 1.0 \text{ x } \frac{900000}{412000}$$

Z = 0.117 + 0.295 + 0.881 + 2.50 + 2.184

Z = 5.977

Since Z score exceeds 4.48. It can therefore be concluded that there is low risk of going bankrupt in short run.

5.8 Step I – Develop risk strategy

Step II – Prepare Risk Appetite Statement

Step III – Adopt a rigorous recruiting process so that desired risk culture characteristics into hiring requirements

Step IV – Use reward and consequences to demonstrate that risk management is everyone's responsibility covering all critical areas of operations

Step V – Establish mechanisms to encourage escalation, rapid response, investigation, and attention by all employees and ensure that decisions are made within the risk strategy and risk appetite framework.

Board and senior management role in promoting sound culture:

1. Lead role in establishing the tone at the top by promoting risk awareness within a sound risk culture. It should be communicated that excessing risk taking is not supported and everyone has to work within the established risk appetite and limits.
2. The responsibility of implementation and reinforcement of sound risk culture and provide reward to employees who work within the risk appetite and limits and at the same time penalize those whose behavior is inappropriate.
3. Ensure that all material risks exceeding appetite are recognized, escalated and addressed in a timely manner.