

**MOCK TEST PAPER**  
**FINAL COURSE: GROUP – II**  
**PAPER – 6A: RISK MANAGEMENT**  
**ANSWERS**

**CASE STUDY: 1**

**1.1 Report to Company's Management**

To: The Management

From: Chief Risk Officer

Date: 15 January 2021

**Subject: Key risks affecting the company**

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

(a) **Economic Risk:** Due to increase in the cost of number of inputs and raw materials used by the Company, it is faced with the threat of pressure on margins on sales. To counter this, the Company has taken various steps including backward integration which comprises own coal mines and iron mines and brownfield expansions e.g. sinter plant, setting up sponge iron plant, coke oven plant, power plant from waste heat recovery, upgrading and expanding manufacturing capacities and increasing efforts on R&D. In addition, cost control measures are an ongoing process.

To avoid price volatility for critical items, the company can attempt to enter into long term contracts.

(b) **Competitor Risk:** The quality improvement efforts have established the brand image of the product as the most preferred brand with the customers. With the thrust given by Government of India on water and water related projects and with the estimated growth in water requirement, the demand of DI pipes is expected to grow substantially, and the company is confident of retaining its market share.

(c) **Foreign Exchange Risk:** Considering the large export and imports of raw material, the Company is exposed to the risk of fluctuation in the exchange rates.

The Company has adopted a comprehensive risk management review system wherein it actively hedges its foreign exchange exposures within defined parameters, through use of hedging instruments such as forward contracts, options and swaps. The company periodically reviews and audits its risk management initiatives through an independent expert.

(d) **Industrial Risk:** The company is exposed to labour unrest risk, which may lead to production slowdown ultimately resulting in plant shutdown.

Labour relations have been excellent throughout the year in spite of number of unions. It is result of such cordial and harmonious relations that not a single man-day has been lost in the last 8 years. The Company believes that labour relations will continue to remain excellent.

(e) **Environment Risk:** The company is exposed to the risk of Environment and Pollution Controls, which is associated with such types of industries.

The Company is committed to the conservation of the environment and has adopted the latest technology for pollution control. The Company is ISO-14001-2004 certified and is adhering strictly to the emission norms applicable for the industry.

(f) **Payment Risk:** The company is exposed to the risk of defaults by the customers in payments.

Since major water infrastructure projects are government founded or foreign aided, the risk involved in payment defaults is minimum. Further, evaluation of the credit worthiness of the customers has minimized the risk of default by other segment customer. Besides, the risk of export receivables is covered under Credit Insurance.

Signed/-

(Risk Manager)

**(15 Marks)**

1.2 (d)

1.3 (b)

1.4 (c)

1.5 (a)

1.6 (b)

**(2 x 5 = 10 Marks)**

### **CASE STUDY: 2**

2.1. (a) The high cost of money laundering cases has prompted banks to seek new ways to address the severe limitations in current anti-money laundering risk management. Traditional approaches to anti money laundering remain dependent on rule-based, descriptive analytics to process structured data. This system clearly has limitations - without automated algorithms, detecting information within the wealth of data requires laborious keyword searches and manual sifting through reports.

Big Data analytics can improve the existing processes in AML operations. Its approaches allow for the advanced statistical analysis of structured data, and advanced visualization and statistical text mining of unstructured data. These approaches can provide a means to quickly draw out hidden links between transactions and accounts, and uncover suspicious transaction patterns.

Advanced analytics can generate real-time actionable insights, stopping potential money laundering in its tracks, whilst still allowing fund transfers for crucial economic and human aid to troubled regions. Big data technologies can identify incidents, help draw a wider picture, and allow a bank to raise the alarm before it's too late.

**(4 Marks)**

(b) CDS contracts have obvious similarities with insurance, because the buyer pays a premium and, in return, receives a sum of money if an adverse event occurs.

However, there are also many differences, the most important being that an insurance contract provides an indemnity against the losses actually suffered by the policy holder on an asset in which it holds an insurable interest. By contrast a CDS provides an equal payout to all holders, calculated using an agreed, market-wide method. The holder does not need to own the underlying security and does not even have to suffer a loss from the default event. The CDS can therefore be used to speculate on debt objects. The other differences include:

- The seller might in principle not be a regulated entity (though in practice most are banks);
- The seller is not required to maintain reserves to cover the protection sold (this was a principal cause of AIG's financial distress in 2008; it had insufficient reserves to meet the "run" of expected payouts caused by the collapse of the housing bubble);
- Insurance requires the buyer to disclose all known risks, while CDSs do not (the CDS seller can in many cases still determine potential risk, as the debt instrument being "insured" is a market commodity available for inspection, but in the case of certain instruments like CDOs made up of "slices" of debt packages, it can be difficult to tell exactly what is being insured);

- Insurers manage risk primarily by setting loss reserves based on the Law of large numbers and actuarial analysis. Dealers in CDSs manage risk primarily by means of hedging with other CDS deals and in the underlying bond markets;
  - CDS contracts are generally subject to mark-to-market accounting, introducing income statement and balance sheet volatility while insurance contracts are not;
  - To cancel the insurance contract the buyer can typically stop paying premiums, while for CDS the contract needs to be unwound. **(6 Marks)**
- (c) Five C's of Credit that bank will review if ABC Ltd. applies for Bank Loan for the expansion of the portfolio:
- (1) **Capacity** – This refers to the borrower's ability to repay the loan. The lenders / banks will consider the cash flows generated from the underlying business, timing of repayment and the probability of successful payment of the loan under various stressed scenarios.
  - (2) **Capital** – It is the promoters / borrower money invested in the business and is an indicator of how much of promoters / borrowers money is at risk if the business fails. Fls / banks will generally consider the borrowers debt to equity ratio to understand how much money the lender is being asked to lend as against the money invested by the promoters / borrower in the business. High debt to equity ratio indicates that the promoters / borrower already have high levels of debt / loans and could be having a higher financial risk.
  - (3) **Character** – It is the obligation that the borrower feels to repay the loan. Emphasis is given on the past loan repayment track record, credit history, credit bureau score. This analysis pertains to the softer aspect of the borrower's intent to pay rather emphasis on financials, ratios and cash flows.
  - (4) **Collateral** – It is a form of security for the lender in case there is default on the loan. In case of default, the lender will take possession of the collateral in place of debt. Collateral can be in the form of tangible assets like land, building, plant, machinery, cash flows, receivables, project assets etc. and also in the form of intangible assets like patents, trademarks etc. The loan agreement should be suitably drafted to include all the relevant details of the collateral. The lender would ideally want the term of the loan to match the useful life of the collateral.
  - (5) **Conditions** – Additionally, apart from the borrower specific criteria's, lenders may also consider external factors which may affect borrower's financials, cash flows and its underlying ability to repay the loan obligations. End use of the loan/ purpose for taking the loan / debt will also be carefully assessed and the transaction will be suitably structured. **(5 Marks)**

2.2 (a)

2.3. (b)

2.4 (b)

2.5 (d)

2.6 (a)

**(2 x 5 = 10 Marks)**

### CASE STUDY: 3

3.1 RG and other members of the board should:

- (i) Avoid conflicts of interest arising between independent directors, non-executive directors and executive directors.
- (ii) Establish a regular and transparent communication mechanism to ensure continuous and robust dialogue and information sharing between all the board members.

- (iii) Ensure tapping of the maximum benefit of expertise, skills, experience and perspectives of lead independent director.
- (iv) Set the tone from the top, and seek to effectively inculcate an appropriate risk culture throughout the firm

(4 Marks)

3.2 Governance Risk involved are as follows:

- (a) Proxy advisory firm, XYZ, raised alarms and questioned executive compensation package paid by ABC Limited.
- (b) A small shareholder filed a law suit against Board of Directors misuse of corporate funds.

(4 Marks)

3.3 Country Risk is broader concept which covers the adverse impact of host country's economic, financial and political environment. This risk is most important in case of Multinational National Corporations (MNCs) which establishes their business in different countries away from the country where they are registered.

#### **Types of Country Risk**

The analysis of Country Risk is not important not only because it impacts the profitability of MNCs but also important for the investors who invest their money through FPI, FDI etc. Let us now discuss the major types of Country Risk.

#### **Political Risk**

This risk mainly arises out of the changes in the political scenarios as well as adverse decisions by the ruling Government. The various types of political risk which ultimately affect the profit of the MNCs from the operations in the host country can be described as follows:

- (i) *Nationalisation or Expropriation Risk*: This is most common form of risk wherein host country takes over the business of MNCs without or with inadequate compensation.
- (ii) *Exchange Control Risk*: This form of risk prevents the MNCs to get converted their earning from local currency to foreign currency to repatriate the same to home country of MNCs. Due to this restrictions even investors in MNCs business also suffer a lot.
- (iii) *Taxes, Rule and Regulation Risk*: This risk arises mainly due to a sudden or dramatic change in Rule and Regulations governing the host country. These sudden changes can be in any of following type of forms:
  - Unanticipated increase tax rates applicable for MNCs operating in the host country.
  - Compulsion to hire local workforce.
  - Compliances of stricter environmental standards.
- (iv) *Inefficient Legal System*: High level of red tapism and corruption at local and higher level pose a serious risk for MNCs operating in the host country as it leads to uncertainty and high cost of operation.

Repudiation of Contracts: This type of risk arises on account revocation of earlier awarded turnkey projects by the Government of host country without adequate consideration and damages. This risk is also called indirect expropriation risk.

#### **Financial and Economic Risk**

The main risk covered in this category is the Sovereign Risk i.e. default in repayment of borrowing by the Government of host country.

Although Government of host country can easily repay the loan by printing more currency notes but it will depreciate value of its currency. The sovereign risk hamper the reputation of the country severely from investment point of view but it saves a lot of foreign exchange of the Government.

To identify such types of risk well in advance following economic variables can be used:

- Ratio of country's Import to its Official Reserve
- Ratio of Import to its Export
- Balance of Payment Surplus/ Deficit on current account.
- Country's Debt Service Ratio
- Country's external debt to its GDP

(7 Marks)

3.4 (b)

3.5 (c)

3.6 (a)

3.7 (b)

3.8 (d)

(2 x 5 = 10 Marks)

#### CASE STUDY: 4

##### 4.1 The possible Risks and their nature are as follows:

- **Financial risk** - These risks are associated with the financial assets, structure and transactions of the particular industry. In other words, these risks are related specifically to the processes, techniques and instruments utilised to manage the finances of the enterprise, as well as those processes involved in sustaining effective financial relationships with customers and third parties.
- **Operational Risk** - These risks are associated with the on-going, day-to-day operations of the enterprise. In other words, these risks associated with the operations of an organization. It is the risk of loss resulting from failure of people employed in the organization, internal process, systems or external factors acting upon it to the detriment of the organization. It includes Legal Risk and excludes strategic and Reputational Risks as they are not quantifiable.

(2 Marks)

##### 4.2 Scaling of Risk as identified above:

- **Measurement of the likelihood of risk**  
Financial Risk – Likely (score 4)  
Operational Risk – Likely (score 4)
- **Risk Consequences**  
Financial Risk – Major  
Operational Risk – Major

(2 Marks)

##### 4.3 Four approaches are suggested to identify and assess the risk as below:

- **Analysis of processes** – Under this technique, material or significant business processes are flow chartered. This will facilitate identification of process level operational risks. An approach that helps improves the performance of business activities by analysing current processes and making decisions on new improvements.
- **Brainstorming** – Under brainstorming a group of employees put forward their ideas or sensation of risk. The employees estimate the risk based on their past experience or intuition involves a focused group of managers working together to identify potential risks, concerns, root causes, failure modes, hazards, opportunities and criteria for decisions and/or options for treatment. Brainstorming should stimulate and encourage free-flowing conversation amongst a group of

knowledgeable and focussed people with a fair/objective outlook. The group should not be biased or critical. It is one of the best and most popular ways to identify both risks and key controls and is the basis for most successful risk workshops.

- **Questionnaires & Interviews** - Focused on detecting the concerns of staff with respect to the risks or threats that they perceive in their operating environment. During a Structured interview, interviewees are asked through a set of prepared questions to encourage the interviewee to present their own perspective and thus identify risks. Structured interviews are frequently used during consultation with key stakeholders when designing the risk management framework. Structured interviews are good to assess risk appetite and tolerance when developing risk appetite statements. A specialist in risk prepares interviews with various management level members of the company in order to elicit the concerns.
- **Checklists** are information aids to reduce the likelihood of failures from potential hazards, risks or controls that have been developed usually from past experience, either as a result of a previous risk assessment or as a result of past failures or incidents or history or industry learning. Auditors often prepare checklists of key controls to aid in their assessment of control effectiveness and the internal control environment. Checklists are good guiding tools; however, can lead to herd mentality and risk managers can miss out on fresh risk thinking and the big picture. **(4 Marks)**

**4.4** Suggested course of action to reduce/ manage risk i.e. risk treatment is as follows:

- Strengthening of Internal Controls System
- Setting up limits for the sanction of amounts.
- Setting up operational risk management department. **(2 Marks)**

**4.5** The Risk Management (Governance) Framework should define a policy statement on the following matters:-

- (i) Determining when to review the Risk Management Framework (RMF) and the frequency for undertaking the review.
- (ii) Deciding who is responsible for the review. The RMF is generally reviewed by the Audit Committee or a team of Directors. Once in few years the RMF can be reviewed with external facilitation. This would provide fresh insights and benchmarking information to the Board.
- (iii) Selecting the scope and method for a review. The scope and boundary of the RMF review can be clearly set out along with the most suited method for review.
- (iv) Manner of circulation of results. **(4 Marks)**

**4.6** The risk maturity level of the company is "Risk Aware". The reason is that the risks are identified within functions and not across processes. Also, risks are not communicated across the enterprise. It is basically a scattered silo based approach to risk management. **(1 Marks)**

**4.7 (b)**

**4.8 (d)**

**4.9 (c)**

**4.10 (c)**

**4.11 (a)**

**(2 x 5 = 10 Marks)**

## CASE STUDY: 5

5.1 (i) The main risk that will be faced by the Bank is Credit Risk and various components of this risk are as follows:

(1) *Default Risk* – This risk means the missing a payment obligation (of principal or interest or both). Default Risk can be measured by probability of default. It depends on credit worthiness of a borrower which in turn depends upon various factors such as management of organization, size of business, strength and reputation of promoters etc.

(2) *Exposure Risk* – This implies the uncertainty associated with future level or amount of risk. In other words, this risk is mainly associated with unexpected action of other party say prepayment of loan before due date or request for refund of deposit before due date.

In some cases, say for amortized credit such risks does not exist as period of receipt is known with greater certainty. Due to uncertainty generally off balance sheet items create such risks. However, in such cases, the exposure is not associated with client's behavior rather behaviors of market which keeps on changing constantly. In case value of derivative position turns out to be positive there is credit risk as it will lose money, if other party defaults. To overcome such risk normally derivative instrument are used.

(3) *Recovery Risk* – This risk is related to recoveries in the event of default, which in turn depends upon various factors such as quality of guarantee provided by borrower, and other surrounding circumstances. This risk can be minimized through Collateral and Third Party Guarantee. However, existence of these two risk management tool also carries risk.

(a) *Collateral Risk*: Although collateral reduces the credit risk but it happens only if collateral can be sold at a significant value. The quickness in realization of collateral depends upon its nature and prevailing market conditions. In normal course, fixed asset collateral normally carries low realizable value than cash collateral. However, if in buoyant market say in case of a property even a fixed asset in the form of a house property carries a higher value. With the use of collateral, the credit risk becomes twofold:

- ◆ Uncertainty related to access it and disposing encumbrances which may be legal in some cases.
- ◆ Uncertainty related to the value realizable from the collateral which may be subject to various factors. To some extent the 2008 crisis was due to overvaluation of collateral against which borrowers were granted hefty loan and at the time of realisation the collateral value was very less.

(b) *Third Party Guarantee Risk*: This collateral is a kind of simple transfer of risk on Guarantor and in case guarantor defaults then risk again comes back to lender.

**(6 Marks)**

(ii) In my opinion the Term Loan upto maximum ₹ 6 crore can be extended to bank as mentioned above the value of collateral itself depends on many factors hence the loan of same amount of will be quite risky. **(2 Marks)**

(iii) To measure random loss, following formula can be used:

$D \times A \times LGD$

D = Default %

A = Amount of Exposure

LGD = Loss Given Default

Accordingly, the expected loss on the term loan of ₹ 6 Crore shall be:

$$4\% \times ₹ 6 \text{ Crore} \times 80\% = ₹ 19,20,000$$

**(3 Marks)**

- (iv) Calculation of Maximum Permissible Bank Finance (MPBF) as per 2nd Method of Lending (Tandon Committee Recommendations) is as under:

Particulars	Amount (₹ in Crore)
1. Total Current Assets (TCA)	8.00
2.. Less : Current Liabilities other than banking borrowing	3.00
3. Working Capital Gap (WCG) (1-2)	5.00
4. Less : 25% of Total Current Assets (25% of 1)	2.00
5. Maximum Permissible Bank Finance (MPBF) (3-4)	3.00

With this additional borrowing the Current Liabilities shall become ₹ 6 Crore (3 + 3) and the new Current Ratio shall become 1.33 (₹ 8 Crore/₹ 6 Crore).

**(4 Marks)**

5.2 (a)

5.3 (b)

5.4 (b)

5.5 (b)

5.6 (c)

**(2 x 5 = 10 Marks)**