CHAPTER – 8

CASE STUDIES IN RISK MANAGEMENT

STEEL

Electro Steel Castings Ltd.

Electro Steel Castings is fully committed to strengthen its risk management capability on continuous basis in order to protect and enhance shareholder value. Further, the risk management framework ensures compliance with the requirements of amended Clause 49 of the Listing Agreement. The framework establishes risk management processes across all businesses and functions of the Company. These processes are periodically reviewed to ensure that the Management controls risks through properly defined framework.

The Company has already undertaken an extensive Risk Management effort that includes introducing Risk Management Manual, compiling a comprehensive profile of the key risks to the Company, identifying key gaps in managing those risks and developing preliminary action plans to address those risks. This effort accomplishes the following goals:

- responds to the Board's need for enhanced risk information and improved mitigation plan;
- provides the ability to prioritize, manage and monitor the risk in the business; and
- formalizes the explicit requirements for assessing risks on an ongoing basis, including an effective internal control and management reporting system.

Some of the key risks affecting the Company are illustrated below:

- **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 one mines and brown field expansions e.g. sinter plant, setting up spong 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 tries to enter into long term contracts.

- ## Competitor Risk

The Company is exposed to the risk of competition, as the market is highly competitive with the elimination of physical barriers and entry of new players.

The company continues to focus on increasing its market share and taking marketing initiatives that help customers in taking better-informed decisions. 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.

- ## 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.

- ## 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 the 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.

- ## Environment Risk

The Company is exposed to the risk of Environment and Pollution Controls, which is associated with such type 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-140001-2004 certified and is adhering strictly to the emission norms applicable for the industry.

- **Payment Risk**

The Company is exposed to the defaults by customers in payments.

Since major water infrastructure projects are government founded or foreign aided, the risk involved in payment default is minimum. Further, evaluating 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.

Questions

1. List and discuss the various types of risk exposures which the company is expected to experience?
2. Discuss the following risks to which the Electro Steel Castings Ltd. exposed and the risk measures taken by it.
   a) Competitor risk
   b) Industrial risk
   c) Environment risk

AUTOMOBILE

Ashok Leyland

Risk Management

The commercial vehicles business has a specific set of risk characteristics, which need to be carefully evaluated, managed and mitigated. In order to effectively manage the cyclical nature of demand, Management has adopted an internal risk management protocol. Risk Management covers the entire process of business, including, *interalia,* capital investment, technology development and customer acquisition/retention.

Continuance of the reform process and emphasis on infrastructure and agriculture augur well for the road transport sector. However, given the cyclical nature of demand in the Commercial Vehicles industry, capacity build up plans are periodically reassessed, taking into account market conditions and demand forecast.

The Company has plans to increase its annual capacity to 184,000 vehicles (medium and heavy duty vehicles) over next two/three years. Capacity addition through de-bottlenecking engine/gear box manufacturing facilities at Ennore unit is nearing completion. This would enable the Company to overcome capacity constraints during the coming years. In addition, the Company is moving ahead with capacity addition of 50000 vehicles per year at the Uttarakhand plant which needs to be completed before March 2010 to avail the fiscal benefits. The Company is pursuing plans to increase the share of non-cyclical business including exports, non-auto engines and sale to Defence sector to mitigate the impact of cyclicality.

Competition in the domestic Commercial Vehicles market has increased significantly with many global OEMs setting up manufacturing base. Consequent to the policy of progressive opening up of the market, customs duty, as a trade barrier, is likely to lose its influence. The Company is preparing to face these challenges through focused R & D efforts in designing/developing vehicles that offer appropriate transport solutions and meet the changing preferences of customers.

Rising fuel prices in the international market, coupled with competitive pressures to contain freight rates, could lead to erosion in vehicle operator's margins, thereby leading to lower demand. However, increased use of heavy tonnage vehicles for moving large freight loads has reduced the tonne/km cost. This has helped improve the operational viability for the vehicle operators.

There are continuing concerns on input cost increases particularly steel and rubber, due to commodity price movements. In a competitive market, the Company may not be able to pass on the cost increases fully through pricing action. Hence, margins may come under pressure. The Company is taking steps to competitively procure components through global sourcing, reduce cost through Value Engineering and improve productivity through shop floor initiatives.

The Company's foreign exchange exposure has increased manifold, through contracting External Commercial Borrowings of US$315mn. over the years. Exports are likely to cross US$ 250 mn. in the next 3 to 4 years. Strengthening of the Rupee, if it continues, can adversely affect realization from exports. However, the Company has an active, centralized treasury department, assisted by technical experts to mitigate adverse effects of currency/interest rate fluctuations. Considering the extent of capital expenditure (over Rs. 30,000 mn.) in the next three years, the Company may face uncertainty in fund availability at reasonable costs. However, given the low gearing at present, the Company believes it would be able to raise the required funds at competitive rats. The Company manages liquidity risk through tie-up of short term facilities from banks which could be used in case of requirement.

Questions

1. Summarise the steps taken by Ashok Leyland for managing its risk exposures.
2. How important is the Foreign Exchange Risk in case of Ashok Leyland? How does it manage the risk?

CASTINGS FORGINGS & FASTERNS

Sundaram Fasteners Limited

Risk Management

The Company, a leading player in manufacture and supply of metallic components to the automotive and engineering industry. By the nature of its business, the Company's sales are closely linked to the automotive industry. The performance of automotive industry is directly linked to the economic growth and is subject to cyclical variations. Entry of global automotive manufacturers into India has made the market very competitive and extremely price elastic. Customers are unwilling to grant price increases to cover even a part of the cost increases. Profits have stagnated and margins have shrunk. The Company has reduced the risks by widening the product range within its existing lines of business and by increasing the customer-base. The Company is steadily increasing its exports which will serve as a long term countermeasure for stagnant domestic business. The company is also expanding its product-base.

Metal prices have soared over the last four years. While steel prices have risen to unprecedented levels, supplies in terms of quality and quantity, especially from domestic steel producers, have been erratic. Meeting customer demands at short notice has become very difficult. The Company has developed new sources for supply of raw materials at affordable costs. The Company has also improved its product-mix so as to make optimal use of available raw materials.

Inflation, increased freight costs, higher interest costs and violent fluctuations in the value of the rupee vis-a-vis foreign currencies are some of the other risks to which the Company is exposed. The Company has taken adequate steps to mitigate, in the short term, the adverse impact on profits arising out of such risks.

Questions

1. Do you find risk identification by Sundaram Fasteners Ltd. adequate? If you are advising them on risk management exercise what are the improvements that you make in the given item?

SHIPPING

The Great Eastern Shipping Company Limited

Risks and Concerns

Economic risk: Shipping is a global business whose performance is closely linked to the state of the global economy. Therefore, any slowdown of the pace of growth globally, especially in the major economies like the US and China, could negatively impact the earnings of the Company.

Volatility: Over and above the economic risks the shipping industry is impacted by numerous short term and regional factors, like political fallouts, weather changes etc. This results in great amount of volatility in the freight market, which in turn impact the Company's earnings.

Great Eastern Shipping Company has been attempting to hedge some of this risk by entering into time charters for part of its fleet. For the year 2008-09, approximately half of the Company's operating days has been covered in this manner.

Single hull tankers in the fleet: 75% of the Company's tanker fleet is double-hulled. The single hull tankers in the fleet could be vulnerable to any further changes in regulations that may take place.

Shipboard personnel: Indian officers continue to be in great demand all over the world. Given the unfavourable tax status conferred on a seafarer sailing on Indian-flagged vessels, it is becoming increasingly difficult for the company to source officers capable of meeting the modern day challenges of worldwide trading. This is more relevant for tanker personnel and may become a hindrance to growth.

Oil Price Risk: With crude oil prices expected to remain high, there is a risk of increase in operating costs due to higher cost of bunkers, lube oil etc. which could negatively impact the earnings of the Company. The Company continuously endeavors to mitigate the same by hedging at least part of the risk at opportune times.

Foreign Exchange and Risk Management

Great Eastern Shipping Company's revenue is largely denominated in U.S.Dollars, which exposes the Company to profit / loss on currency fluctuation. A significant part of this exposure is hedged by denominating most of its debt servicing obligations in U.S. Dollars and incurring some of its operating and repair costs in foreign currency. The net currency exposure is then managed actively using hedged products like foreign exchange forwards and option contracts. The tenure of these contracts is up to five years.

As on March 31, 2008, the Company had forward sold position of U.S. Dollars 360 millions.

Similarly the Company also has a system for taking suitable hedges through fixed rate interest swaps to minimize its effective borrowing costs.

Quality, Safety, Health & Environment

The Company in order to ensure provision of highest standard of service, has implemented and initiated various measures with respect to Quality, Safety and Environment Management Systems.

Tanker Management and Self Assessment

Great Eastern Shipping Company has embraced Tanker Management and Self Assessment of the Oil Companies international Marine Forum (OCIMF) and is incorporating and implementing OCIMF's various requirements in a phased manner in its quest for achieving highest standard of Safety and Environmental Excellence. To facilitate its implementation, major changes have been made in areas of Incident Investigation and Analysis, Management of Change, Environment Management, Emergency Preparedness, Contingency Planning and Risk Management Systems.

Training of Floating Staff

Declining competency standards and shortage of seafarers is a cause of serious concern to all in the shipping industry today. To deal with this situation the Company has embarked on a training initiative in various fronts e.g. Company specific shore based training programme on technical and navigational topics for shipboard Officers and Engineers, Vessel Resource Management programme for senior floating staff ashore, Shore based training programme for ratings, Computer based training programme on specific technical and management topics on board ships, etc. It is expected with these measures that vessels would be operated by personnel of competency standard set by the Company.

Risk Management Process

In accordance with requirements of Clause 49 of the Listing Agreement Great Eastern Shipping Company has established a Risk Management programme for its business risks, with assistance from external experts. The programme is built upon the foundation of the existing risk management process and practices of the Company and has evolved a structured approach for risk management to manage significant risks faced by the Company.

The Risk Management framework and reporting regime enables the Company to assess and demonstrate whether its significant risks are properly identified and controlled, and to potentially eliminate unnecessary control related overheads. The Risk Management framework involves Risk Identification, Assessment, Treatment / Action Plan, Review and Reporting as a continuous process. The Risk Management framework itself is being reviewed and modified to suit the business requirements of the Company.

Questions

1. Do you consider the risk identified by The Great Eastern Shipping Company Ltd. and the steps to mitigate them fall under Silo approach or enterprise risk management? Discuss.
2. Discuss the risk mitigating steps taken by The Great Eastern Shipping Company Ltd. for training of floating staff and foreign exchange risk.

TEXTILE

Grasim Industries

Risks and Concerns

Grasim Industries has a comprehensive risk management policy. The risk management *inter alia* provides for review of the risk assessment and mitigation procedure, laying down procedure to inform/report the Board in the matter and for periodical review of the procedure to ensure that executive management controls the risks through a properly defined framework.

During the year, the Audit Committee, which has been designated by the Board for the purpose, reviewed the adequacy of the risk management framework of the Company, the key risks associated with the business of the Company and the measures and steps in place to mitigate the same. The details were thereafter presented to and discussed at the Board Meeting.

Some of the key risks affecting the Company are illustrated below:

Economic Risk

Due to the opening of world trade and diminishing tariffs, Grasim is faced with the threat of pressure on margins on products. To counter these, it stepped up its focus on value added products by upgrading and expanding manufacturing capacities and increasing R & D. In addition, structural cost optimization and cost control measures have been initiated.

Competitor Risk

The market is highly competitive with the elimination of fiscal barriers and inroads of large conglomerates into the country with inorganic growth strategies. Grasim continued to focus on increasing its market share and taking marketing initiatives that help customers in making informed decisions.

Project Execution Risk

Grasim is in the process of setting up cement capacities and captive thermal power plants. In the fibre business also, plans to increase the capacity are under implementation. The project execution is largely dependent upon land purchase, project management skills, timely delivery by the equipment suppliers and adherence to schedule by civil contractors. Any delay in project implementation will impact revenue and profit for that period. The Company has been continuously reviewing the project execution to ensure that the implementation schedules are adhered to.

Human Resource Risk

The Company's ability to deliver value also depends on its ability to attract, train, motivate, empower and retain the best professional talents. These abilities have to be developed across Company's rapidly expanding operations. There is significant competition from emerging service sectors, which poses inherent risks associated with the ability to hire and retain skilled and experienced professionals. Grasim continuously benchmarks HR policies and practice with the best in the industry and carries out necessary improvement to attract and retain best talent and build intellectual capital.

Foreign Exchange Risk

Grasim's policy is to hedge its long-term foreign exchange risk as well as short-term exposures within the defined parameters. Long-term foreign exchange liability is fully hedged and hedges are on held to maturity basis. As imports (including capital goods import) exceeded exports, the Company has suitably hedged the differential short-term exposure from time to time to appropriately manage the currency risk.

Interest Rate Risk

The Company is exposed to interest rate fluctuations on its borrowings. It uses a judicious mix of fixed and floating rate debts within the stipulated parameters. Grasim continuously monitors its interest rate exposures and whenever required, uses hedging tools to minimize interest rate risk.

Commodity Price Risk

Grasim is exposed to the risk of price fluctuation on raw materials, energy sources as well as finished goods. However, considering the normal correlation in the prices of raw materials and finished goods, the risk is reduced. The Company's strategy of backward integration, like pulp and caustic soda for VSF, helps in minimizing the effect of increase in prices of raw materials. Setting up of captive power plants aids in controlling the impact of rise in energy cost, which is a major cost element.

Forward integration in value added products for eg. specialty fibre in VSF, ready mix concrete in cement enables to reduce the price fluctuation in the finished goods.

Questions

1. Grasim Industries has identified some risks to which it is exposed. List them.
2. Do you think there are no other risks to which the company is exposed? Discuss.
3. Discuss the following risks which are identified by Grasim and discuss the risk mitigating steps taken by it
   a) Project Execution Risk
   b) Human Resource Risk
   c) Commodity Price Risk

BANKS

IDBI

Robust Risk Management is a key element of IDBI's business strategy. The philosophy of the Bank with regard to risk is guided by the twin objectives of enhancement of shareholders' value and optimum allocation of capital. Spreading the awareness across the Bank, identification, measurement, monitoring and controlling of risk, efficiently and effectively, in a manner geared towards yielding sustained economic value, is amongst the highest priorities of the Bank.

IDBI has an integrated risk management function that looks after all aspects of enterprise wide risk management. Overall risk management is the responsibility of Risk Management Committee of the Board. Appropriate structure, policies and review processes are in place in the area of risk management. A well-established, effective and independent internal control mechanism exists in the Bank for supplementing the risk management systems.

Implementation of Basel-II Norms

Reserve Bank of India issued guidelines on implementation of the new capital adequacy framework (base-II) in April 2007. The guidelines stipulate that Indian banks having operational presence outside India will have to migrate to the specified approaches (Standardized Approach for credit risk and Basic Indicator Approach for Operational risk) with effect from March 31, 2008. All other scheduled commercial banks, including IDBI are required to migrate to these approaches by March 2009. The Bank is regularly undertaking parallel runs by applying the Basel-II guidelines and is well equipped to comply with these requirements.

As part of its preparation in respect of Basel-II norms, IDBI has put in place a Disclosure Policy. The disclosures as articulated in the Policy would enable the market participants to access key information on capital, risk exposures, risk assessment process and adequacy of capital of the Bank. An Internal Capital Adequacy and Assessment Process Policy (ICAAP) will also be implemented shortly. The ICAAP policy would enable the Bank to internally assess the risks it may be confronted with and decide on an appropriate strategy to identify, measure and manage the risks to the satisfaction of stakeholders.

A Collateral Management Policy has also been formulated so as to adopt requisite credit risk mitigation techniques.

IDBI views the implementation of the Basel-II framework as a means to adopt the best practices in risk, management and has taken initiatives to upgrade systems, processes and skills to enable the Bank to migrate to the advanced approaches at an early date.

Credit Risk

IDBI recognizes the significance of credit risk in banking operations and has put in place Credit Risk Management System with appropriate risk management skill sets, which provides not only a competitive advantage in the market place, but also positions the Bank to capitalize on the opportunities for growth. The Bank follows a proactive Credit Policy, which is regularly reviewed and updated to take into account the developments in the credit scenario. Best practices are employed through appropriate credit delivery processes and portfolio & account monitoring. Sector exposures and target businesses are monitored regularly, especially for exposure to sensitive sectors.

Under the parallel run of the new capital adequacy framework (Base-II) IDBI has adopted the Standardized Approach for credit risk. The Bank is in the process of modernizing and upgrading Its Credit Risk Management System in step with the market developments to meet Basel-II requirements.

Market Risk

IDBI addresses all forms of market risks, viz., liquidity risk, interest rate risk and forex risk through a well-defined set of policies and processes. Separate treatment is given to the management of risks in trading book and baking book recognizing their differential impact on the balance sheet. The trading book risks, which are more susceptible to market movements, are continuously measured and managed by marking the positions to the prevalent market rates. In order to assess the likely impact of market movements, periodic analysis of the trading book is carried out on the basis of positions based on changes in market rates, past trends, stress tests through rate shocks, scenario analysis, etc. Market risks in the banking book are analyzed and managed through liquidity and interest rate sensitivity, gap, duration and scenario analysis. The overall positions and functions of market risks are run under the policy framework defined in Asset Liability Management Policy, Market Risk Policy and Investment Policy.

In order to implement the Basel-II norms in respect of market risk, IDBI is upgrading its software capability to assess the liquidity and interest rate risks under various scenarios, including stress testing. The Bank is also implementing Value at Risk (VaR) model for the entire Treasury trading portfolio with a view to assessing capital requirement for market risks based on advanced approach under Basel-II. Also, the capital charge for interest rate risk in banking book will be fine- tuned through duration gap analysis.

Operational Risk

IDBI measures, monitors and controls operational risk through a software system ‘ORBIT’ (Operational Risk Business Intelligence Tool). Branches are being rated for their operational risk profile through an embedded branch-rating model. Your Bank has put in place a policy for ‘Know Your Customer’ (KYC) and ‘Anti-Money Laundering’ (AML) requirements. As a measure of Operational Risk Management, the Bank also conducts appropriate training programmes to sensitize line managers across the Bank on operational risk inherent in each function.

As a part of implementation of Basel-II guidelines, IDBI has commenced computation of the capital requirements for operational risk under the Basic Indicator Approach (BIA). Also, steps have been initiated to upgrade the existing system and practices to migrate to Advanced Measurement Approach.

Recognizing the importance of Business Continuity Planning (BCP) for minimizing the adverse effects of business disruption and system failure, the Bank has put in place a Board-approved broad framework of BCP. In addition, in order to provide continued and uninterrupted customer service even during natural disasters, a Disaster Recovery Site has been installed and Disaster Recovery (DR) drill exercises are conducted periodically to test the efficacy of the DR Plan.

Questions

1. Discuss the IDBI's approach to implement Basel II norms.
2. Explain the Market Risk to which IDBI is exposed and the steps taken to mitigate its financial affects.
3. Discuss the following risks to which IDBI is exposed and the approach it has taken to deal with them
   a) Credit risk
   b) Operational risk

IT – SOFTWARE

Infosys

The following report sets out the enterprise-wide risk management that Infosys practices. Readers are cautioned that the risks outlined here are not exhaustive and are for information purpose only.

Overview and approach to risk management

We face changes in the business environment from time to time that necessitate continuous evaluation and management of significant risks faced by us. The Enterprise Risk Management (ERM) program at Infosys aims toward appropriately evaluating and managing risks holistically, so as to enable the organization to meet or exceed the expectations of multiple stakeholders. The program seeks to eliminate negative surprises that may affect the achievement of our business objectives and impact our stakeholders' expectations. Further, effective risk management practices at Infosys are geared toward sustaining and enhancing our competitive advantage.

Risk management is embedded into Infosys's fundamental business model described as 'Predictable, Sustainable, Profitable and De-risked' (PSPD). It seeks long-term relationships that allows it grow more predictably. The company eschews excessive pursuit of short-term and tactical opportunities for sustainable business opportunities, generated through deep client relationships.

Infosys's Risk Management Framework encompasses the relationship between the risk and the reward, factoring in stakeholders' expectations. Its risk management practices seek to maximize business returns while keeping risks within reasonable boundaries. The practices are oriented to evaluate relevant risks, and decide the appropriate action(s), for either eliminating or mitigating the risk impact, or toward recovering from the risk event. The risk mitigation strategy and action plan in most cases is based on commercial considerations; evaluating costs of the various options available to address the risk against the possible business benefits.

Risk management landscape at Infosys

The risk management landscape consists of various risk-related initiatives and activities including the following:

- **Risk identification:** A periodic or trigger-based assessment is undertaken to identify its significant risks and prioritize the risks for action. The assessment is based on a risk perception survey, business environment scanning, and inputs from key stakeholders.
- **Risk measurement and control:** The key risks are tracked and risk mitigation and control activities are defined, to align the risk exposure levels to the risk appetite. Owners are identified for mitigation and control measures.

- **Risk reporting:** Periodic reporting on the identified risks is an integral part of the risk management process at Infosys. Besides risk reporting, and control functions embedded in the business operations of each unit and function, the identified material risks are reported to the Risk Council periodically. Further, a quarterly report is presented to the Risk Management Committee, which additionally reviews the ERM program, the status, and trends available on the material risks highlighted.

Organization of the risk management function

Risk management at Infosys spans across the enterprise at various levels, from Infoscions through to Board oversight. These levels also form the various lines of defense in risk management at Infosys.

The roles and responsibilities regarding risk management at Infosys are summarized below:

Level	Role
Board of Directors	• Oversee risk management performed by the Executive management
Risk Management Committee	• Comprise four independent directors • Oversee risk management on behalf of the Board • Makes recommendations on the risk management program
Risk Council	• Comprises the CEO, COO and CFO • Formulates risk management guidelines and policies • Reviews enterprise risks periodically, initiates action and reviews progress
Office of Risk Management	• Comprise a network of risk managers from all businesses and support groups across the Infosys Group, and is led by the Chief Risk Officer (CRO) • Facilitates the execution of risk management in the enterprise as mandated by the Risk Council

Level	Role
Unit Heads	● Manage their functions as per our risk management philosophy ● Manage risks at the unit level, in consultation with the Risk Council
Infoscions	● Implement ascribed risk action ● Provide feedback on the efficacy of risk management and warnings for early detection of risk events

Risk Management Framework

Infosys's Risk Management Framework encompasses risks under the following broad categories:

- **Strategy:** Relates to the choices the company makes regarding the direction in which the organization is led to enhance its competitive position.
- **Industry:** Relates to the inherent characteristics of the industry, market and customers and the related challenges.
- **Counter-Party:** Relates to the risks arising from the company's association with parties for conducting business, where the performance of such parties is not sufficient or not desirable to achieve our business objectives.
- **Resources:** Relates to the inability to achieve business objectives due to inappropriate sourcing or sub-optimal utilization of key organization resources such as talent and infrastructure.
- **Operations:** Relates to ineffective execution of core business activities including service delivery to clients as well as internal business processes. This also includes business activity disruptions arising out of external and internal factors including threat to physical security and information security.
- **Compliance:** Relates to inadequate compliance with existing or new regulations, inappropriate conduct of contractual obligation and inadequate safeguard of Intellectual Property leading to litigation or loss of reputation.

The secondary risk categorizations that are more detailed are set out below. The sub-classification allows us to rapidly identify where we are likely to face the potential impact of the identified risk.

Infosys's unified view of the risk universe

Strategy	• Planning effectiveness • Growth engines • Leadership	• Service differentiation • Brand and reputation • Execution of strategy
Industry	• Geo-political change • Technical Innovation • Competition intensity	• Access to capital • Industry and market dynamics • Market selection
Counter-party	• Vendor selection • Vendor exposures • Credit management	• Supply-chain management • Customer exposures • Customer concentration
Resources	• Talent supply management • Talent development • Career value management	• Scalability of infrastructure • Deployment efficiency
Operations	• Operations planning • Execution excellence • Business activity disruption	• Complex execution management • Contingency planning • Data for decision-making
Compliance	• Environment dynamics • IP management • Data security management	• Contractual compliance • Contractual exposures • Litigation/violation response

Key risk management activities conducted during the year

- A risk perception survey was conducted with the company's top management, to prioritize the key risks faced by the Company. The survey was timed to coincide with the launch of the Annual Strategy Planning exercise, so that the perceived risk landscape and the resultant implications could be factored in the strategy. These were augmented further by focused discussions with key stakeholders, including the Risk Council members.
- During the year, Infosys further expanded and refined the process of risk profiling of the accounts. The system of risk profiling for accounts focused on relevant risks emanating from the risk categories of counter-party, resources, operations, and compliance. The pilot exercise tracked the performance of both the projects and the accounts for an extended period of time.
- In the context of the company's constant endeavor to strengthen security measures across all operational centres, an external agency was authorized to conduct a physical security audit for its Bangalore facility. The company has analyzed the key findings of the audit and has started a phased-implementation of the recommendations made.
- During the year, an improved risk heat map utilizing predictive measures was designed. The leading indicators forming the core of the predictive measures help to measure the extent of exposure, and also the net effect of the mitigation strategies pursued. This approach has been adopted for both evaluating and reporting on all material risks for the company. This will be implemented during the next fiscal year, and will also include any new material risks that may emerge in the year.
- The Infosys's risk management team interacted with risk teams from various global corporates during the year to exchange ideas and share best practices.

Questions

1. Summarise the approach Inforsys has taken to manage risk it is exposed to. How does it organized the risk management function in the company?
2. Do you think the company's approach falls under Silo category or Enterprise Risk Management category? Justify your answer.

AZTECSOFT

Risks facing the Company and the Company's response to the risks

The essence of risk management lies in maximizing areas of control over outcome and minimizing areas where the Company has no control over outcome. Risk Management is a dynamic process which should constantly be able to identify all the emerging risks and propose solutions to manage these. The risk perception also constantly varies depending on the size of the business, business segment, location and scale of business. In these challenging business conditions, the Company constantly strives to identify areas of potential risks, understand the risks, devise mitigants and manage the risks.

Risk management is an integral part of the charter of the board of directors at Aztecsoft. The board is responsible for monitoring risk levels on various parameters and suggest measures to address the same. Formal reporting and control mechanisms ensure timely information availability and facilitate proactive risk management.

The following risks are identified by the Company and it monitors parameters corresponding to them on a regular basis.

The following risks are identified by the Company and it monitors parameters corresponding to them on a regular basis.

A. Business Risks

- Customer risks
- Customer concentration
- Geographical concentration
- Competition

B. Delivery risks

- Execution
- Disaster prevention and recovery
- Technological obsolescence
- Fixed Price contracts
- Talent acquisition & retention

C. Financial risks

- Foreign currency rate fluctuations
- Interest rate fluctuations
- Potential liability to customers, exceeding insurance coverage

D. Legal and statutory risks

- Contractual liabilities
- Statutory compliance

E. Political risks

- Visa regulations/restrictions

A. Business risks

Customer risks

The company works with several early stage companies. Given the past experience of slowdown in technology spending as well as the decrease in venture capital spending in the technology space, over exposure to such could prove detrimental to the stability of the revenues of the Company.

The company is constantly de-rising to change its portfolio of customers and adding more large, mature and late stage customers. The Company has made significant progress on this front and most of its top five customers have revenues in excess of billion dollars. The Company will, however, continue to work with early stage technology companies, given the synergy between the needs to such companies and it's expertise.

Customer concentration

Significant portion of the Company's revenues are earned from a limited number of customers. Excessive exposure to a few large customers has the potential to impact profitability and increase credit risk and result in large delinquencies.

The Company seeks to expand its portfolio of customers on a regular basis to bring down the exposure of the Company to a few customers. The Company has added new customers during the year. These customers continues to provide stable and predictable revenue. The company's revenue from the top 10 customers has increased from 60.8% to 64.7% during the year. Revenue from top five customers is at 49.48%. The Company will continue its efforts in this direction.

Geographical concentration

The company has traditionally derived most of its revenues from the US given the technology focus and specialized product engineering services offered b it. During the current year, 89.6% of the Company's revenues were from customers located in the US. Consequently, an economic slowdown the US will seriously affect the revenues of the Company.

In order to mitigate the risk of geographical concentration the Company has significantly stepped up its business acquisition activities in Europe and has had reasonable success.

However, since most of the potential customer for software product engineering services are located in US, depending on US markets will not significantly reduce.

Competition

While the business conditions have improved, the competition is also intense in the technology segment. With increasing outsourcing by independent software vendors (ISVs), this segment will attract many more players intensifying competition.

The Company offers end-to-end high technology solutions to independent software vendors and technology service providers. The Company offers services along the entire software lifecycle that includes technology consulting, architecture, design and development, professional services testing and maintenance. The Company uses its technology expertise to build solutions that meet the scalability, availability and reliability requirements of the modern enterprise. Company expects that its technology focus will enable it to distinguish itself from competition as it seeks to provide services to technology/product companies. The Company has a reputation for excellence in delivery among product engineering companies and it proposes to leverage on this to grow its business. The Company however expects competition to continue to be very intense in the future.

B. Delivery risks

Execution risks

Significant parts of the Company’s customers are product engineering companies. Considering the need for high quality timely delivery, any failure in delivery, quality, timeliness and product features could adversely affect the Company’s relationship with its customers.

Considering these, robust and state of the art delivery processes and practices in line with industry standards have been put in place, which involves measurement and metrics in all aspects of delivery such as

- Completeness of delivery in terms of product features
- Product quality that meets and exceeds customer expectations
- Timely delivery

With the help of these metrics, the Company ensures

- consistency
- predictability
- repeatability

in all aspects of its deliverables to its customers. The Company has also employed a number of technical tools which helps it to automate quite a few of the tasks that go into controlling quality of the deliverables. Project management/collaboration tool as well as the audit mechanisms that are in place also helps in automating the measurements timely capture of metrics and to ensure that the projects comply to the organizational processes and practices.

In addition, to plan for mitigation of the unforeseen technical and managerial risks, the Company has robust risk management processes which involves mature processes, guidelines and checklists. With the help of these process assets, the Company carries out

- systematic identification of risks
- prioritize them on the basis of their impacts and probability of occurrence
- plan/execute appropriate and cost-effective mitigation actions

With the help of these pro-active mitigation actions, the projects and Delivery group have been able to successfully mitigate a number of technical and managerial risks for ourselves and for our customers.

We are also in the continuous improvement of our processes / practices by strengthening our product quality measurements/metrics programs and by imbibing some of the Six-Sigma technique which will further enhance our capability to continually improve our processes/practices to keep pace with the growing expectations of our customers.

Disaster prevention and recovery

Disasters are obstacles to business and negatively affect the results of operations. Disasters lead to delay, postponement or cancel decisions to do business. Disaster prevention and recovery have gained added significance after the terrorist attacks on the US.

The Company has elaborate disaster recovery plan for its development centers and test labs in Bangalore. Pune and Hyderabad. Its business continuity process is commensurate with ISO 27001. Disaster recovery plans are reviewed on a quarterly basis. Redundancy has been built into its data communication links and each development center is connected to other centers using multiple fiber links with different path. Similarly there are several links to overseas destinations, using different routes, and provided by multiple service providers. Periodic reviews are done to ensure that all these arrangements meet the organization’s requirements.

Technological obsolescence

The company operates in those technology segments where changes are particularly rapid. Such changes can lead to obsolescence of a Company’s expertise, posing a serious threat to the predictability of its revenues.

The Company makes investments in R & D, with a view to keep pace with the latest developments in the technology space. The Company has 'Special Interest Groups' (SIGs) that focus on the latest developments in the areas of special interest to the Company. Further, the fact that the Company works with many technology companies enables it to stay abreast of futuristic technologies and thus avoid technological obsolescence. However, this risk cannot be fully mitigated.

Risks associated with fixed price contracts

There is an increasing trend in the enterprise space towards fixed price contracts. Since the Company bears the risk of cost overruns and inflation with respect to its fixed-price, fixed-time frame projects, the Company's operating results could be adversely affected by inaccurate estimates of time and efforts required for contract completion.

Robust process reduces the risks and uncertainties in delivering high-quality software solutions to customers within budgeted time and cost. Risk mitigation forms part of the initial project plan and suitable steps to mitigate such risks are initiated at project commencement. The Company has got its process assessed under the Capability Maturity Model. Currently the Company derives a small portion of its revenues from fixed price contracts. However given the very nature of the fixed price projects, cost over runs and delayed deliveries cannot be ruled out.

Talent acquisition and retention and the resultant risks of wage inflation

The Company's ability to execute project engagements and to obtain new customers depends, in large part, on its ability to attract, train, motivate and retain highly skilled IT professionals, especially at the senior levels. An inability to hire and retain additional qualified personnel will impair the Company's ability to bid for or obtain new projects and to continue to expand its business. There can be no assurance that the Company will be successful in recruiting and retaining a sufficient number of IT professionals with the requisite skills to replace those IT professionals who leave.

The Company offers its employees a challenging work environment. The Company couples this with competitive compensation packages and an attractive stock option policy. This has helped the Company attract and retain talented employees. However wage increases may have an adverse effect on the Company's profit margins unless the Company is able to continue increasing the efficiency and productivity of its professionals. The Company believes that the increase in the utilization levels from those prevailing during the current year will address in part any decrease in the profitability due to increase in wage cost. The attrition rate faced by the Company, especially at the managerial levels, is below industry average.

The Company is also faced with increasing challenges on the talent acquisition part given the significant increase in demand for persons with specialized knowledge in product engineering. The Company has adopted several measures to face this challenge, by spreading its operations to Pune and Hyderabad, intake of candidates from campuses, etc.

C. Financial risk

Foreign currency rate fluctuations

During the fiscal year 2008, 91% of the Company's revenues were foreign currency denominated. Given the high offshore content of the revenues, a major portion of the Company's expenses is in Indian rupees. As a result operating profits will be highly impacted by foreign currency rate fluctuations. While depreciation of the Indian rupee would have a favorable bottom-line impact, an appreciation would affect the Company's profitability adversely. Fiscal year 2008 saw a relatively volatile Rupee, with the conversation rates from USD to Rupee varying from Rs. 41.29 on April 1, 2007 to a low of Rs. 39.32 closing at Rs. 39.97 per USD on March 31,2008.

The Company hedges a major part of the risk on exchange rate by entering into forward cover/options for predictable inward remittances of the US Dollars, minimizing the risks associated with foreign currency rate fluctuations.

Interest risk

The Company is debt free and as such its core operations are not exposed to interest rate fluctuations. However, the Company is exposed to fluctuations in interest rates as it has a significant part of its cash reserves invested in the debt markets in India. The Indian markets have seen a major increase in the interest rates over the past year besides beign volatile. This has resulted in a reduction of the potential returns on the Company's liquid assets.

Given the considerations of capital preservation and liquidity in deployment of its cash reserves in the debt schemes of mutual funds, this risk cannot be fully mitigated. Company continues to carefully monitor its investments in mutual funds to mitigate the impact of any sharp adverse movement in interest rates.

Potential liability to customers, risk of exceeding insurance coverage

Many of the Company's contracts involve projects that are critical to the operations of its customers' businesses and provide benefits that may be difficult to quantify. Any failure in a customer's system could result in a claim for substantial damages against the Company, regardless of the Company's responsibility for such failure.

Although the Company attempts to limit its contractual liability for damages arising from negligent acts, errors, mistakes or omissions in rendering its services, there can be no assurance that the limitations of liability set forth in its service contracts will be enforceable in all instances or will otherwise protect the Company from liability for damages. Though the Company maintains general liability insurance coverage, including coverage for errors or omissions – going forward, there can be no assurance that such coverage will be available on reasonable terms and in sufficient amounts to cover one or more large claims, or that the insurer will not disclaim coverage as to any future claim. The successful assertion of one or more large claims against the Company could adversely affect the Company's results of operations and financial condition.

D. Legal and statutory risks

Contractual obligations

The primary legal risks that the Company faces pertain to disputes on intellectual property rights, patents, copyrights and other general corporate and contractual risks, etc.

The Company documents all the contracts it enters into with the customers. The Company evaluates the legal risks involved in a contract, ascertains its legal responsibilities under the applicable law of the contract and tries to restrict its liabilities under the contract. The Company has adequately insured itself to cover possible liabilities arising out of non-performance of the contract. As on date, the Company does not have any litigation in relation to contractual obligations pending against it in any court in India or abroad.

The Company has put in place detailed security and data / intellectual property protection measures commensurate with ISO 27001 reinforcing the Company's commitment to protect intellectual property. The Company also has an elaborate contract review and management process to ensure fulfillment of contractual obligations.

Statutory compliance

The Company operates in several countries and it has to ensure compliance of the various applicable rules and regulation sin these countries. The Company is exposed to penalties and other liabilities related to non-compliance/inadequate compliance in these countries.

The Company uses independent legal counsel to advise the Company on compliance issues with respect to the laws of various jurisdictions in which the Company has its business activities and to ensure that the Company is not in violation of the laws applicable where the Company has operations. The company has an elaborate Compliance reporting system which captures the status on various compliance areas on a quarterly basis.

E. Political risks

The Government of India has been favorably disposed towards the IT industry in India. Given that there is a consensus among all leading political parties about the importance of the IT industry, it is likely to continue to be looked upon favourably by the government of the day. Therefore, the Company does nto perceive any major immediate political risks, changes in government policy that might affect the Company. The Company is heavily dependent on the US. Any moves in the US to restrict outsourcing of development work to Indian companies could be detrimental to the Company.

Visa restrictions / regulations

The majority of the employees of the Company are Indian Nationals. The ability of the Company to render its services in the US, Europe and other countries depends on the ability to obtain visas and work permits. Immigration to US, Europe and other countries are subject to legislative change as ell as variations in standards of application and enforcement due to political forces and economic conditions. It is difficult to predict the political and economic events that could affect immigration laws or restrictive impact they could have on obtaining or monitoring work visas. The reliance on visas makes the Company vulnerable to such changes and variations as it affects the ability of the Company to staff projects with employees who are not citizens of the country where the work is to be performed. As a result, the Company may not be able to get a sufficient number of visas for employees or may encounter delays or additional costs all of which may affect profitability.

The Company monitors the status of visa availability and requirements very systematically. The senior management regularly reviews the developments to identify risk mitigation measures. Visa availability could impact commencement of projects.

Questions

1. Aztecsoft identifies various steps of risks under 5 heads. Assess the importance of this classification for managing risk.
2. Discuss the “business risks” to which the Aztecsoft is exposed. Outline the steps taken to mitigate the financial consequence of the risks.
3. Aztecsoft is subject to various other risks. Outline and discuss each of them and the measures taken by it to mitigate their effects?

TATA CONSULTANCY SERVICES LTD. (TCS)

TCS has put in place an Enterprise-wide Risk Management (ERM) process and reports on the risks it is faced with, to the Board of Directors. The Company believes that it has robust and "fit for purpose" risk management processes in place.

Some of the major risks and concerns identified are as follows:

Global economic environment: The Global economic environment is deteriorating and the possibility of economic slow-down in the USA (which accounts for around 50% of our business) is high in fiscal 2009. This may, in varying degrees, affect other economies. As a result, market related business and credit risks with clients in some of the countries are expected to rise.

To address the risk, the Company has increased diversification across geographies, enlarged the basket of offerings and has focused on enlarging global presence, by strengthening the global development centres.

Currency Fluctuations related risks: Strengthening of the Indian Rupee has adversely affected the IT industry in fiscal 2008. It may continue in fiscal 2009.

The company has used various types of foreign currency forward and options contracts to hedge the risks associated with fluctuations in these currencies. The Company has laid down appropriate policies and processes for the use of financial derivative instruments consistent with its risk management strategy. Also, the Company has developed software products to monitor, manage and report the exposures on a daily basis.

Commoditisation of offerings/value proposition: Increased competition from Indian and Global IT players could result in pressure on pricing and commodtisation of low-end services.

Global IT Service and consulting companies are expanding operations in India through organic and inorganic routes. They are in a position to offer full services play with "India-Cost" advantage.

Competition from other developing countries like China which have a reasonable pool of knowledge workers is increasing. The market for outsourced IT and ITES services are becoming more global in nature. A broader competitive field may create pressure on prices as new global service providers in China, Malaysia, Brazil, Mexico, Russia and Eastern Europe enter the global market.

This risk is countered by broadening the Company's service offerings and targeting increasingly complex deals. Investment in creating brand awareness could act as a differentiator. In fiscal 2008, the Company has invested substantial amounts in the 'Experience certainty' campaign in order to increase the awareness of the TCS Brand.

The Company is focused on innovation. Innovation initiatives are in multiple forms, but all of these are focused on better productivity through continuous improvement in processes, systems, methodologies and capabilities. Emphasis on innovatin also helps the Company in moving up the value chain. Innovation in the Company is practiced by adopting ‘derived’ innovation that seeks continuous improvement in every area and by ‘platform’ innovation, whereby multiple capability and skill teams engage to develop innovative ideas. Innovation has resulted in new types of offerings to customers such as ’IT-as-a-service’ for small and medium businesses launched in fiscal 2008.

Break-through innovation: The Company has come up with a Co-Innovation Network (‘COIN’), which is an ecosystem by which the Company creates innovation networks between itself and individuals and organizations outside of TCS, who have new products and Intellectual Properties (IP), or ideas and financiers such as Venture Capitalists. This enables product partners in ‘COIN’ to get a bigger market and consequently enables the Company to provide an increased range of offerings to its customers. The Company held its US Innovation Forum 2008 at Palo Alto, California. This exclusive event, hosted by TCS COIN™, provided invitees the opportunity to connect to peers and discuss innovation in emerging technologies that impact businesses. Thought leaders from renowned universities, disruptive start-up companies, research organizations, venture funds and our select clients participated.

Gross margin deterioration risk: Increased competitive pressure in India for the pool of available talent has been driving employee costs higher. Over the past few years such continuing rise in salary costs and other input costs have narrowed the cost differentials between India and the developed countries.

Heightened competition from global and Indian IT companies has been limiting the ability to increase billing rates.

Risk mitigation action includes increasing volume of value added services like Global Consulting which commands higher rates and focusing on higher margin activities like increasing offshore leverage. Due to TCS’s ability to offer superior services it has been able to get rate increases at contract renewal time. Productivity improvements and better cost management on a continuous basis are being used to reduce this risk.

Immigration and visa regulations related risks: Timely availability of requisite number of work visas for the US, the UK and Europe has always been a challenge for the Indian IT services companies. In the UK the eligibility for Visa is changing to a ‘Points Based System’.

In order to counter this risk, improvements in advanced visa planning and timely enhancement of ‘local recruitment’ plans at global locations are being pursued with rigour.

Hiring and retention of employee related risks: The requirement for having qualified professionals at junior, middle and special list levels in significant numbers, for the projected growth in business in a talent – starved marketplace continues to be exacerbated. Managing attrition, as well as salary expectations is a significant challenge.

This challenge is met through enlarging the number of engineering educational institutions from which TCS recruits. Our academic interface programme also includes training of college faculty and providing appropriate course material, to ensure that these educational institutions are able to maintain the requisite quality. The Company has embarked on recruiting Science graduates with the aptitude for IT services business, for its needs. Consequently, the 'available pool of qualified resources' has been redefined, since India produces a very large number of Science graduate.

Counterparty risk in treasury operations: As mandated by RBI, authorized institutions are the intermediaries or 'counterparty' for treasury operations. These institutions are mostly global MNC banks of repute. The global financial uncertainty as a result of the issues arising in credit markets increases the inherent risks of the hedging transactions that TCS undertakes with these institutions.

In order to counter this risk, the Company uses multiple intermediary institutions and reduces exposure to any single institution. The Company also conducts regular review of the Treasury processes and the counterparty limits.

Risk of Customers / Clients facing financial difficulty: The TCS's credit terms are standard and there is constant monitoring of the creditworthiness of the customers and prospective clients. This is especially critical in case of customers where the Company experiences delayed payments.

For risk mitigation, the Company has enhanced the monitoring of outstanding amounts from its customers.

Questions

1. What are the risk exposures TCS has identified? Explain each of them.
2. What steps has the TCS taken to deal with risk arising out of global economic environment and currency fluctuations?
3. What measures have the company initiated for addressing the following risks?
   a) Counterparty risk in treasury operations
   b) Credit risk from customers/clients

REAL-ESTATE

Mahindra Life Spaces

Threats, Risks and Concerns

Given the general rise in inflation levels, the Reserve Bank of India is following a tight monetary policy which has reduced the liquidity in the market and hardened interest rates. As a result, cost of home loans has increased and is now in the range of 11-13 per cent. Non-availability of bank finance for purchase of land and stricter risk weightage and provisioning norms for financing construction costs are concerns for the industry. Similarly, the inflationary situation in the market for key construction inputs such as energy, cement and steel continues to be a cause for concern. Non-availability of skilled labour poses similar risks for efficient operation of the Company.

Mahindra Lifespaces is conscious of these risks and is taking measures to mitigate them. For instance, to ensure efficient and on-time execution of projects and to keep in check the impact of inflation, the Company is planning to test a new contract model. The objective is to have reputed contractors for construction and let the Company focus on development. Regarding the shortage of skilled manpower, the Company is looking to tie-up for training programmes with local training institutes and it is.

Poor availability of land and high prices are another cause of concern. This problem is accentuated as this is an industry which has traditionally been quite unorganized and marred wit myriad of laws and regulations that vary considerably from one state to another. Moreover, many developers in the industry are now facing pressure to service and develop properties due to their high carrying cost. Mahindra Lifespaces has always had a policy of being judicious and objective in the purchase of land, which has insulated it from these risks.

Although the situation has cooled-off and is considerably better than it was in 2006-07, another area of concern for the Company is the uncertainty associated with SEZs. Mahindra Lifespaces, with its approach towards acquisition of land and processes in developing the projects, has never faced any problems in this context. Even so, the Company is looking to diversify into industrial parks targeted at the domestic markets, which is high on its future growth agenda. We strongly believe that only those developments which are conceived at good locations and are clearly focused on industrial infrastructure development within an integrated framework will stand the test of time as against pure-play real estate focused developments. This approach has been validated at Mahindra World City, Chennai and will be extended to our new projects.

Questions

1. Summarise the risk management exposures identified by Mahindra Life Spaces.
2. Do you think the risk identification and explanation with regard to the risks that the company is exposed to are adequate? If you are drafting a note how would you modified? Give a detailed note.