

FINAL EXAMINATION

GROUP IV

(SYLLABUS 2012)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER 2013

Paper- 17: STRATEGIC PERFORMANCE MANAGEMENT

Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.
This Question paper has been divided into 3 parts viz., Section-A,
Section-B and Section-C. Section-A carries 60 marks,
while Section-B & C carry 20 marks each.

Please note:

- From Section-A: Performance Management, you are to answer Question No. 1&2, which are compulsory Questions, each carrying 15 marks. Further answer any three Question from the rest of the Questions in this section, each carrying 10 marks.
- From Section-B: IT & Econometric tool in Performance Management, you are to answer any one Question, carrying 20 marks.
- From Section-C: Enterprise Risk Management, you are to answer any one Question, carrying 20 marks.

SECTION A (60 Marks)

Performance Management

You are to answer Question No. 1&2, which are compulsory Questions, each carrying 15 marks. Further answer any three Questions from the rest of the Questions in this section, each carrying 10 marks.

1. M/s. Kraft Foods Ltd., is the world's second largest food company, with an average annual turnover of over ₹ 200 Billion. The company provides the best brands of Coffee, Chocolate, Cheese and many savory food items. To help in consistently delivering against its objectives, M/s. Kraft Foods Ltd. has created a very strong Supply Chain Relationship between the company and its Suppliers/Customers. M/s. Kraft Foods Ltd., believes that a truly excellent Supply Chain Relationship with its customers cannot be achieved without the support and cooperation from its employees. Further the company believes that Customer Satisfaction is the key for its success.
M/s. Kraft Foods Ltd., is committed to ensure that right products are made available to its customers at right time and in right quantity and price. Its brand image is quite strong, based on 3 key areas, viz., quality, value and trust.
M/s. Kraft Foods Ltd.'s supply chain functions are provided with excellent operational support, which helps to deliver, as per its objectives.
M/s. Kraft Foods Ltd., focused on the successful management of a customer order from the moment it is compiled at the customer, its processing through M/s. Kraft Foods Ltd.'s order systems to the point of delivery at the customer warehouse. The company's policy is to ensure that any 'waste' that could cause delay or disruption should be eliminated. The customer order is compiled correctly, using accurate data, sent at agreed timings with jointly agreed delivery windows. Ideally the order is electronically communicated using EDI or the Internet. Further the company believes that e-commerce is improving

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communication with the use of e-mail, and the extranets making contract and the sharing of knowledge and information faster and easier.

You are required to—

- (i) Describe the objectives of Supply Chain Management, with regard to M/s. Kraft Foods Ltd.,
- (ii) Describe the importance of Supply Chain Management to the company under reference viz., M/s. Kraft Foods Ltd.,
- (iii) Describe the measures taken by M/s. Kraft Foods Ltd., to change to Supply Chain Management. What are the benefits the company has been able to derive due to its sound Supply Chain Management? 5x3

Answer:

1. (i) Objectives of Supply Chain Management (SCM) of M/s Kraft Foods Ltd..
M/s Kraft Foods Ltd., has the following objectives, while adopting Supply- Chain Management:
 1. Every facility available at M/s Kraft Foods Ltd., has an impact on cost. Supply Chain Management must play a role to ensure that the food items made strictly conform to customer's requirements.
 2. SCM should be efficient and cost effective across the entire system.
 3. Finally, SCM should revolve around efficient integration of Suppliers, warehouses, stores and production units.
 4. To ensure that right products are made available to its customers at right time and in right quantity and price.
 5. To ensure that supply chain functions are provided with excellent operational support, which should help the company to deliver to the customers, as per its objectives.
- (ii) Importance of Supply Chain Management for M/s Kraft Foods Ltd.:
 - i) Managers these days recognize that getting products to customers faster than the competitors will improve a company's competitive position. To remain competitive, the company must seek new solutions to important Chain Management issues like-supply chain management, modal analysis, load planning, route planning and distribution network design.
 - ii) M/s Kraft Foods Ltd., must face corporate challenges that impact Supply Chain Management such as Re-engineering, Globalization, Outsourcing, etc.,
 - iii) Faster execution of customers orders is the key to increasing sales. The company stands with a chance of procuring more orders and more market share.
 - iv) SCM has an important role to play in moving goods more quickly to their destination.
 - v) There is a substantial profit advantage for the extra time that M/s Kraft foods are getting from the market for faster delivery.
- (iii) Measures taken by M/s Kraft Foods Ltd. in introducing Supply Chain Management and the benefits derived from the SCM:

Over the last three decades, the concept and theory of business management have undergone profound changes and development. Many old ways of doing business have been challenged and many new ideas and approaches have been created like-Business Process Re-engineering, Supply Chain Management, Balanced Scorecard, etc., etc., The company's top management, no doubt had some qualified experts, who were fully conversant with SCM and decided to implement SCM in 1980s. The broad reasons why SCM was introduced were-

Changes in the business environment,
Globalization,
Cut-throat competition

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Heightened customer expectation,
Technological impact, etc.,

The following measures were taken by M/s. Kraft Foods Ltd., for introducing SCM.

- Planning
- Selection of right suppliers
- Manufacturing /Production steps
- Logistics and
- creating a network for receiving defectives.

Among the benefits the company derived on application of SCM are;

- a. Building up a Customer Service Excellence Programmed, that ensured that its products are in right place, at the right time, in the right quantity, in excellent condition and at the lowest possible supply chain cost.
- b. Earning a good brand image delivered a competitive advantage. This was possible only because of the company's thrust in the areas of quality, value and trust.
- c. Service Excellence Program: which enabled the company to create a strong supply chain relationship between the company, suppliers and customers and deliver service excellence to its customers.
- d. Perfect Ordering
- e. Knowledge exchange'
- f. Excellent Supply Chain relationship with its customers.
- g. Consumer satisfaction.

In conclusion, for a company like M/s Kraft Foods, to provide the best brands of Coffee, Chocolate, cheese, and several other delicacies, it needs to make sure-that every part of its Supply Chain is working at its best. This case study provides an excellent example of what businesses need to do in today's market place to ensure that the consumers receive the products they desire in the right place, at the right time and in right condition, every time.

- 2. M/s. Royal & Sun Alliance is one of the world's major insurance companies, with operations in 50 countries around the world. Like other service industries, Insurance companies are faced by consumers, whose requirements are becoming increasingly sophisticated and whose willingness to switch to another supplier is on the increase. To compete successfully and thrive in its environment, M/s Royal & Sun Alliance must be forward-thinking in their approach to its customers and in applying new techniques. M/s. Royal & Sun Alliance has applied successfully the concept of customer segmentation and relationship management to achieve successful relationships with its key customers. M/s. Royal & Sun Alliance sells most of its commercial business thru' Insurance brokers, who place the business with the company, on behalf of their industrial and commercial customers. Because selling insurance is so competitive, it was essential that the company focused on working with high quality brokers, who had a positive attitude to business.**

M/s. Royal & Sun Alliance believed in

- **Understanding each customer's unique needs.**
- **Developing strategic plans and achieve mutual goals.**
- **Provide the tools, resources and service to achieve goals.**

A Relationship Manager controls the overall business strategy and acts as a co-ordinator between different business divisions and customers.

M/s. Royal & Sun Alliance has created a website dedicated to its customers.

You are required:

- (i) to define Customer Relationship Management.**
- (ii) what are the problems faced by the company before implementing Customer Relationship Management?**
- (iii) what are the steps taken by the company to solve the problem? 5+5+5**

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Answer:

2. (i) Definition of Customer Relationship Management (CRM):

CRM is an integrated approach to identifying, acquiring and retaining customers. By enabling organizations to manage and coordinate customer interactions across multiple channels, departments and lines of business, CRM helps organizations maximize the value of every customer interaction and drive superior corporate performance.

CRM thus, entails initiatives that surround the customer side of the business. An example is initiatives wrapped around the customers in an effort to increase sales, improve customer service, add market share, enhance customer loyalty and reduce operating costs of sales and service.

CRM is a business strategy comprised of process, organizational and technical change, whereby a company seeks to better manage its enterprise around its Customer behaviours. It entails acquiring and deploying knowledge about customers and using this information across the various customers touch points to increase revenue and achieve cost reduction through operational efficiencies.

(ii) Problems faced by M/s Royal & Sun Alliance before implementing CRM:

- a. The company was not able to understand its customers and was not able to retain them.
- b. Company's Insurance brokers were not able to reach their strategic targets.
- c. The company was not able to attract new customers.
- d. The Direct Sales forces were not effective.
- e. The call centres were not properly managed
- f. Customer Relationship management was not satisfactory.
- g. Customer requirements were becoming increasingly sophisticated.
- h. The company was finding it difficult to thrive in such competitive environment.

(iii) Steps taken by M/s Royal & Sun Alliance to solve its problems:

- a. As a major initiative, the company introduced Customer Relationship Management (CRM). CRM enabled the company to forward thinking in their approach to its customers.
- b. M/s. Royal & Sun Alliance applied successfully the concept of customer segmentation and Relationship Management to achieve successful relationships with its key customers.
- c. M/s. Royal & Sun Alliance believed in
 - Understanding each customer's unique needs
 - Developing strategic plans and achieve mutual goals.
 - Provide the tools, resources and service to achieve goals.
 - Joint Planning with key customers,
- d. Retain customers through better customer experience. The company also initiated steps to attract new customers.
- e. Thru' introduction of CRM, the company was able to improve its profitability.
- f. The company was able to reduce its customer management costs
- g. CRM enabled the company to support its customer services!'
- h. M/s. Royal & Sun Alliance created a web-site for its clients.

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3. The following is the pay-off matrix of a game, being played by A and B. Determine the optimal strategies for the players and the value of the game:

		<u>B's Strategy</u>	
		b ₁	b ₂
<u>A's Strategy</u>	a ₁	8	-7
	a ₂	-6	4

10

Answer

3. This given problem does not have a saddle point.
Now suppose that A plays strategy a₁ with probability x and plays strategy a₂ with probability 1-x.

If B plays strategy b₁ then A's expected pay-off can be determined in reference to the figures given in the first column of the pay-off matrix as follows:

$$\text{Expected pay-off (given that B plays } b_1) = 8x - 6(1-x)$$

Similarly, if B plays strategy b₂, the expected pay-off of A can be determined as follows:

$$\text{Expected pay-off (given that B plays } b_2) = -7x + 4(1-x)$$

Now we shall determine a value of x so that the expected pay-off for is the same, irrespective of the strategy adopted by B. This value can be obtained by equating these two equations. Thus, $8x - 6(1-x) = -7x + 4(1-x)$

$$8x - 6 + 6x = -7x + 4 - 4x$$

$$\text{Or } x = 10/25 = 2/5.$$

A would do best to adopt the strategies a₁ and a₂ choosing in a random manner, in the proportion of 2:3 (i.e., 2/5 and 3/5). The expected pay-off for A, using this mixed strategy equals $8x(2/5) - 6(3/5) = -2/5$

Thus, he shall net a loss of 2/5 per play in the long run.

We can determine mixed strategy for B in a similar manner as for A. Thus, if he plays strategy b₁ with probability y and strategy b₂ within the ratio of 11:14 in a random manner,

$$\text{B's expected pay-off (loss) per play shall } 8(11/25) - 7(14/25) = -10/25 = -2/5$$

It implies that B shall gain 2/5 per play in the long run.

Thus, we conclude that A and B should both use mixed strategies as given here and the value of game equals -2/5.

	Strategy	Probability
For A,	a ₁	2/5
	a ₂	3/5
For B,	b ₁	11/25
	b ₂	14/25

4. The Budgeted overheads and Cost driver volumes of XYZ are as follows:

Cost pool	Budgeted Overheads (₹)	Cost Driver	Budgeted Volume
Material Procurement	5,80,000	No. of orders	1,100
Material Handling	2,50,000	No. of movements	680
Set-up	4,15,000	No. of set-ups	520
Maintenance	9,70,000	Maintenance hours	8,400

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Quality Control	1,76,000	No. of inspection	900
Machinery	7,20,000	No. of M/c hours	24,000

The company has produced a batch of 2,600 components of AX-15, its material cost was ₹ 1,30,000 and labor cost ₹ 2,45,000.

The usage activities of the said batch are as follows:

Material order-26,

Maintenance hours-690,

Material movements-18,

Inspection-28,

Set ups-25 and

M/c hours-1,800.

Calculate Cost Driver Rates that are used for tracing appropriate amount of overheads to the said batch and ascertain the cost of batch of components, using Activity Based Costing.

10

Answer:

4.

Computation of Cost Driver Rates:

	Particulars		Amount(₹)
1.	Material Procurement	5,80,000/1100	527
2.	Material handling	2,50,000/680	368
3.	Set-up	4,15,000/520	798
4.	Maintenance	9,70,000 / 8,400	115
5.	Quality Control	1,36,000/900	196
6.	Machinery	7,20,000 / 24,000	30

Computation of Batch Cost of 2,600 units of AX-15

₹

Material Cost		1,30,000
Labour Cost		2,45,000
Prime Cost		3,75,000
Add: Overheads		
Material Orders 26x527	13,702	
Material Handling 18x368	6,624	
Set up 25x798	19,950	
Maintenance 690 x 115	79,350	
Quality Control 28x196	5,488	
Machinery 1800x30	54,000	1,79,114
Total Cost		5,54,114

5. Batron Co. Ltd., is considering a cost saving project. This involves purchasing a machine costing ₹ 7000, which will result in annual savings on wages cost of ₹ 1000 and on material costs of ₹ 400. The cost of capital of the company is 15%. The following forecasts are made of the rates of inflation each year for the next 5 years:

Wages costs 10%

Material costs 5%

General prices 6%

Evaluate the project, assuming that the machine has a life of 5 years and no scrap value.

10

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Answer:

5.

Calculation of Net Present Value:

Year (₹)	Labour Cost Saving (₹)	Material Cost (₹)	Total Savings @15%	DCF (₹)	Present Values
1	1000 x (1.1)=1100	400x(1.05)=420	1520	0.870	1322
2	1000 x (1.1) ² =1210	400x(1.05) ² =441	1651	0.756	1248
3	1000 x (1.1) ³ =1331	400x(1.05) ³ =463	1794	0.658	1180
4	1000 x (1.1) ⁴ =1464	400x(1.05) ⁴ =486	1950	0.572	1115
5	1000 x (1.1) ⁵ =1610	400x(1.05) ⁵ =510	2120	0.497	1054
	Present Value of total savings				5919
	Less: Initial Cash Outflow				7000
	Net Present Value (Negative)				(-)1081

Conclusion: Since the present value of cost of project exceeds the cost of savings from it, hence it is not suggested to purchase the machine.

6. Bee manufacturing company sells its product at ₹ 1,000 per unit. Due to competition, its competitors are likely to reduce price by 15%. Bee wants to respond aggressively by cutting price by 20% and expects that the present volume of 1,50,000 units per annum will increase to 2,00,000. Bee wants to earn a 10% target profit on sales. Based on detailed value engineering, the comparative position is as given below:

Particulars	Existing (₹)	Target (₹)
Direct material cost/unit	400	385
Direct manufacturing labour/unit	55	50
Direct machinery costs/unit	70	60
Direct manufacturing costs/unit	525	495
Manufacturing overheads:		
No. of orders (₹ 80 per order)	22,500	21,250
Testing hours (₹ 2 per hour)	45,00,000	30,00,000
Units reworked (₹ 100 per unit)	12,000	13,000

Manufacturing overheads are allocated using relevant cost drivers. Other operating costs per unit for the expected volume are estimated as per below:

Research and design	₹ 50
Marketing and customer service	₹ 130
Total	₹ 180

Required:

- (i) Calculate target costs per unit and target costs for the proposed volume showing break-up of different elements.
- (ii) Prepare target product profitability statement. 5+5

Answer:

6. (i)

Target Selling Price: ₹1000 less 20%	₹ 800
Less: Target Profit margin(10%)†	₹ 80
Target costs per unit	₹720

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The breakup of ₹720 per unit is as follows:

Target Costs per unit

Particulars	per unit (₹)	
Direct Materials		385
Direct manufacturing labour		50
Direct machining costs		60
Direct manufacturing costs		495
Add: Manufacturing Overheads:		
Ordering and receiving $(21,250 \times ₹ 80) \div 2,00,000$	8.50	
Testing and inspection $=((30,00,000 \times ₹ 2) \div 2,00,000$	30.00	
Rework $(13,000 \times ₹100) \div 2,00,000$	6.50	45.00
Total manufacturing costs		540
Other operating costs:		
Research and design	50	
Marketing and Customer service	130	180
Full Product costs		720

(ii) Target Product Profitability

Particulars	Per unit (₹)	2,00,000 units (₹)
1. Sales	800	16,00,00,000
2. Cost of goods sold:		
Direct Materials	385	7,70,00,000
Direct Labour	50	1,00,00,000
Direct machining costs	60	1,20,00,000
	495	9,90,00,000
Manufacturing overheads	45	90,00,000
	540	10,80,00,000
3. Gross Margin(1-2)	260	5,20,00,000
4. Operating Costs		
Research and design	50	1,00,00,000
Marketing and customer service	130	2,60,00,000
	180	3,60,00,000
5. Operating Profit(3-4)	80	1,60,00,000

SECTION B (20 Marks)

IT & Econometric tool in Performance Management

You are to answer any one Question, carrying 20 marks.

7. (a) What do you think, would be the impact on the different levels of management due to computers and MIS?
 (b) What are the benefits that would accrue to a company practicing Total Productivity Management?
10+10

Answer:

7. (a) Management Information System

Management Information System is a systematic process of providing relevant

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information in right time in right format to all levels of users in the organization for effective decision making. MIS is also defined to be system of collection, processing, retrieving and transmission of data to meet the information requirement of different levels of managers in an organization.

Objectives of MIS

- i) To provide the managers at all levels with timely and accurate information for control of business activities
- ii) To highlight the critical factors in the operation of the business for appropriate decision making
- iii) To develop a systematic and regular process of communication within the organization on performance in different functional areas
- iv) To use the tools and techniques available under the system for programmed decision making
- v) To provide best services to customers
- vi) To gain competitive advantage
- vii) To provide information support for business planning for future

Potential Impact of Computers and MIS on different levels of management:

The potential impact of computers on top-level management may be quite significant. An important factor which may account for this change is the fast development in the area of computer science. It is believed that in future computers would be able to provide simulation models to assist top management in planning their work activities. For example, with the help of a computer it may be possible in future to develop a financial model by using simulation technique, which will facilitate the executives to test the impact of ideas and strategies formulated on future profitability and in determining the needs of funds and physical resources. By carrying sensitivity analysis with the support of computers, it may be possible to study and measure the effect of variation of individual factors to determine final results. Also, the availability of new class of experts will facilitate effective communication with computers. Such experts may also play a useful role in the development and processing of models. In brief, Potential impact of computers would be more in the area of planning and decision making.

Futurists believe that top management will realize the significance of techniques like Simulation, Sensitivity Analysis and Management Science. The application of these techniques to business problems with the help of computers would generate accurate, reliable, timely and comprehensive information to top management. Such information would be quite useful for the purpose of managerial planning and decision-making. Computerized MIS will also influence in the development, evaluation and implementation of a solution to a problem under decision making process.

Potential Impact of Computers and MIS on middle management level will also be significant. It will bring a marked change in the process of their decision-making. At this level, most of the decisions will be programmed and thus will be made by the computer, thereby drastically reducing the requirement of middle level managers. For example, in the case of inventory control system, computers will carry records of all items in respect of their purchase, issue and balance. The re-order level, re-order quantity etc., for each item of material will also be stored in computer after its predetermination. Under such a system, as soon as the consumption level of a particular item of material will touch reorder level, computer will inform for its purchase immediately. The futurists also foresee the computer and the erosion of middle management as the vehicles for a major shift to recentralization. The new information technology will enable

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management to view an operation as a single entity whose effectiveness can only be optimized by making decisions that take into account the entity and not the individual parts.

The impact of Computers and MIS today at supervisory management level is maximum. At this level, managers are responsible for routine, day-to-day decisions and activities of the organization which do not require much judgment and discretion. In a way, Supervisory manager's job is directed more towards control functions, which are highly receptive to computerization. For control, such managers are provided with accurate, timely, comprehensive and suitable reports. A higher percentage of information requirements of executives is met out at this level.

Potential impact of computers and MIS on supervisory level will completely revolutionize the working at this level. Most of the controls in future will be operated with the help of computers. Even the need of supervisory managers for controlling the operations will be substantially reduced. Most of the operations/activities now performed manually will be either fully or partially automated.

(b) Benefits of Total Productivity Management (TPM): TPM provides a system for coordinating all the various improvement activities for the company, so that they contribute to the achievement of corporate objectives.

The following are some of the benefits that would accrue to a company practicing TPM:

- i) A set of new management goals will be developed by the management, using the skills and training provided during the implementation of the TPM.
- ii) will lead to team-bonding and better accountability.
- iii) Improved quality and total cost competitiveness.
- iv) Will help in improving productivity and lead to quality team training for problem-solving.
- v) Will help in earlier detection of factors critical to maintaining equipment 'uptime'.
- vi) Measure impact of defects, sub-optimal performance and downtime using 'overall equipment effectiveness'.
- vii) Will help in motivating people to function better all the time.
- viii) TPM helps in achieving 3 goals viz., Zero Product Defects, Zero Equipment Unplanned failures
- ix) a clear business culture, designed to continually improve the efficiency of the total production system.
- x) provides a practical and transparent ingredients to reach operational excellence.

8. (a) What is "Six Sigma"? What are the different key roles that have been identified by Six Sigma for its successful implementation?

(b) What are 'Decisions Support Systems'? What are the different benefits that Decision Support System can provide to a company? **10+10**

Answer:

8. (a)

SIX SIGMA: Six Sigma simply means a measure of quality that strives for near perfection. It is a disciplined, data-driven approach and methodology for eliminating defects in any process.

The statistical representation of Six Sigma describes quantitatively how a process is performing. To achieve Six Sigma, a process must not produce more than 3.4 defects per million opportunities. A Six Sigma defect is defined as anything outside of customer specifications. A Six Sigma opportunity is then the total quantity of chances for a defect.

Six Sigma identifies several key roles for its successful implementation:

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- Executive Leadership includes the CEO and other members of top management who are responsible for setting up a vision for Six Sigma implementation. They also empower the other role holders with the freedom and resources to explore new ideas for breakthrough improvements.
- Champions take responsibility for Six Sigma implementation across the organization in an integrated manner. The Executive Leadership draws them from upper management. Champions also act as mentors to Black Belts.
- Master Black Belts, identified by Champions, act as in-house coaches on Six sigma. They devote 100% of their time to Six Sigma. They assist Champions and guide Black Belts and Green Belts. Apart from statistical tasks, they spend their time on ensuring consistent application of Six Sigma across various functions and departments.
- Black Belts operate under Master Black Belts to apply Six Sigma methodology to specific projects. They devote 100% of their time to Six Sigma.
- Green Belts are the employees who take up Six Sigma implementation along with their other job responsibilities, operating under the guidance of Black Belts.

(b) Decision Support Systems (DSS):

In a world of constant flux, informed and thoughtful decision-making is the cornerstone of business success. As a manager, one must make decisions that affect his business every day, some critical and some, not so critical. DSS allow faster decision-making, identification of negative trends and better allocation of business resources all to the benefit of the organization.

DSS are a specific class of computer-based information systems that support one's decision making activities. A DSS analyzes business data and provide inter-active information support to managers and business professionals during the decision-making process, from problem recognition to implementing the decision. DSS use:

- i. Analytical models
- ii. Specialized data bases
- iii. A Decision maker's own insights and judgments and
- iv. An interactive, computer-based modeling process to support semi-structured business decisions.

A key component to any DSS is Business Intelligence Reporting tools, processes and methodologies. These provide us with rich reporting, monitoring and data analysis, which are necessary for effective and fast decision-making.

DSS helps to support Business Decision Making. It helps the firm to gain competitive advantage.

Benefits of DSS:

- i. DSS speeds up the process of Decision-making.
- ii. Helps in increasing organizational control.
- iii. Speeds up problem-solving
- iv. Helps to automate managerial processes
- v. improves personal efficiency
- vi. Eliminates value chain activities.

SECTION C (20 Marks)

Enterprise Risk Management

You are to answer any one Question, carrying 20 marks.

9. (a) Describe Corporate Risk Management & Explain relationship between Risk & Strategy.
(b) Do successful growth strategies automatically lead to a boost in profits?
(c) What is Risk Pooling? **8+6+6**

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Answer:

9. (a) Corporate Risk Management works to ensure the safety of the business, guarding it from risk of injury or financial loss. It helps to optimize risk taking of an organization.

Business process management in itself involves both short-term and long-term decisions. An entrepreneur who promote a business entity is aware of the risks that he will encounter during the period of incorporating the entity, establishing infrastructure, and entering commercial operations in a time bound framework.

The entrepreneur tries to formulate a corporate strategy, and then implement, evaluate, and control it to attain the desired goals. In today's volatile economy, it is difficult to make corporate strategy work in a designated manner. Normally, corporate strategy risk identification has three steps. These are as follows:

- (1) Looking inwards to comprehend the organizational mindset and its operations.
- (2) Understanding the external environment, especially, in respect to competition at the market place and the political, social and cultural issues that impact corporate strategy.
- (3) Combining steps 1 and 2 projecting the requirements of the strategy and identifying the grey areas, that is, risks.

Maintaining the balance between the internal and external environments is vital; this process includes several risks, and maintaining this balance may itself become a challenge.

- (b) Do successful growth strategies automatically lead to a boost to profits - Not necessarily as Greenwald and Kahn (2005) point out in a recent article, multinational media giants like Disney, Viacom and Time Warner often posted spectacular annual revenue growth in the decade between 1994 and 2004, while the low accompanying shareholder returns indicated that in fact, they weren't generating true shareholder value. Why? The authors maintain that companies operating in global markets are often destined to have lower returns than more traditional companies operating in 'local markets'. They contrast the performance of these big media companies with traditional US newspaper companies, whose revenue growth was much more modest, but who managed to generate positive shareholder returns over the same period. The advantage depends on economies of scale -and this requires a producer to operate above a certain level of production - this minimum efficient scale is more likely to be achieved in large-scale markets. In a restricted market, on the other hand, economies of scale are much less easy to achieve, as they tend to require a much larger percentage of the market.

- (c) One of the forms of risk management mostly practiced by insurance companies is Risk Pool. Under this system, insurance companies come together to form a pool, which can provide protection to insurance companies against catastrophic risks such as floods, earthquakes etc. The term is also used to describe the pooling of similar risks that underlies the concept of insurance. While risk pooling is necessary for insurance to work, not all risks can be effectively pooled. In particular, it is difficult to pool dissimilar risks in a voluntary insurance market, unless there is a subsidy available to encourage participation.

Risk pooling is an important concept in supply chain management. Risk pooling suggests that demand variability is reduced if one aggregates demand across locations because as demand is aggregated across different locations, it becomes more likely that high demand from one customer will be offset by low demand from another. This reduction in variability allows a decrease in safety stock and therefore

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reduces average inventory.

The three critical points to risk pooling are:

- i) Centralized inventory saves safety stock and average inventory in the system.
- ii) When demands from markets are negatively correlated, the higher the coefficient of variation, the greater the benefit obtained from centralized systems i.e., the greater the benefit from risk pooling.
- iii) The benefits from risk pooling depend directly on the relative market behavior. If we compare two markets and when demand from both markets is more or less than the average demand, we say that the demands from the market are positively correlated.

Thus the benefits derived from risk pooling decreases as the correlation between demands from the two markets becomes more positive.

The basis for the concept of risk pooling is to share or reduce risks that no single member could absorb on their own. Hence, risk pooling reduces a person or firm's exposure to financial loss by spreading the risk among many members or companies.

- 10. (a) RBI has developed certain guidelines with respect to operational risk in financial institutions. Discuss.**
(b) Discuss the concept of "Generally Accepted Cost Accounting Principles".
(c) What is Gambler's Ruin Theory?
(d) Discuss the concept of Risk Mapping. **8+4+3+5**

Answer:

- 10. (a)** The Reserve Bank of India has also developed certain guidelines with respect to operational risk in financial institutions. These are as follows:
- (1) The common equity component as a percentage of total assets should be at 7 per cent in March 2009 for Indian banking sector as against the range of 3 per cent to 4 per cent for large international banks. Total capital to risk asset ratio (CRAR) was 13.75 per cent, with tier 1 banks at 9.4 per cent. Therefore, the Indian banks were in a favorable position to meet the growth requirements. Currently, they have a reasonable period to plan and raise required capital for future and growth.
 - (2) The gross NPAs for the banking sector have increased 2.4 per cent as on 31 March 2008 to 2.6 per cent as on 30 September 2009. In the context of rising non-performing assets and likely slippages resulting in operational risk, Reserve bank of India has introduced 70 per cent provisioning coverage ratio for non-performing assets.
 - (3) Credit to commercial real estate has been evidencing higher risk perception, especially, in the case of home loans. Reserve Bank of India has set certain limits beyond which the security cover should be 120 per cent and the actual loan will be only to the extent of 80 per cent of the asset value.
 - (4) Again, the banking sector has been investing in mutual funds and therefore has to be sensitive to roll-over risks as well as liquidity risk in the event of the need for sudden redemption by large investors at the same time.
 - (5) Non banking financial companies who are engaged in microfinance face a risk that arises out of multiple lending and high interest rates leading to deterioration in asset quality. So there is a need for these companies to access the credit quality of these loans by continuous monitoring.

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- (6) Securitization of asset by banks is also another area where operational risk is inherent. The RBI is considering norms for minimum intervention requirement and minimum holding for securable loans.
- (7) Even though hedging is resorted to by banks, normally there are also unhedged portions that may translate into severe stress and their asset quality may deteriorate. It is necessary that the unhedged portion be closely monitored and be built into credit and other rating assessment of the borrowers.
- (8) Introduction of technology in banking has brought many benefits but has brought with it an increasing vulnerability to cyber frauds. An appropriate control mechanism needs to be built in to prevent such frauds.
- (b)** Generally Accepted Cost Accounting Principal (GACAP) is unique. There have been compilations of financial accounting principles such as Paul Grady's work. The formalization of Cost Accounting Principles in use in India started acquiring a more cohesive form in the regime of administered prices ushered in the 1950 through the work of Tariff Commission mandated to fix tariffs and prices in a variety of industries. The movement acquired further fillip through the work of other statutory price-fixing authorities including the Bureau of Industrial Cost & Prices, Ministry of Finance.

The requirement for determination of cost of production of manufactured goods used for captive consumption further focused attention on the subject of GACAP.

The objectives of this document are;

- (i) To codify the GACAP as applied in the Indian industry;
 - (ii) To narrow down diversities in cost accounting practices facilitating the process of development of cost accounting standards;
 - (iii) To provide a reference source to industry and practitioners in preparation and attestation of Cost Statements, where specific cost accounting standards are yet to be issued;
 - (iv) To provide a reference source to all the stakeholders in the understanding and interpreting the cost statement;
 - (v) To provide a base for monitoring the evolution of new concepts and practices in cost accounting and to codify them as and when they become generally accepted;
- (c)** The basic idea of this theory relates with game of a gambler, who plays with an arbitrary sum of money. Gambler would play with some probabilities of gain and loss. Game would continue until the gambler loses all his money. Theory would also talk about gambler's ultimate ruin and expected duration of the game.

In context of the firm's failure, firm would take the place of a gambler. Firm would continue to operate until its net worth goes to zero, point where it would go bankrupt. The theory assumes that firm has got some given amount of capital in cash, which would keep entering or exiting the firm on random basis depending on firm's operations.

In any given period, the firm would experience either positive or negative cash flow. Over a run of periods, there is one possible composite probability that cash flow will be always negative. Such a situation would lead the firm to declare bankruptcy, as it has gone out of cash. Hence, under this approach, the firm remains solvent as long as its net worth is greater than zero. This net worth is calculated from the liquidation value of stockholders' equity.

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(d) Risk mapping is the process of identifying, quantifying and prioritizing the risks that may interfere with the achievement of your organizational objectives. Risk mapping is the first step in operational risk measurement, since it requires identifying all potential risks to which the bank is exposed and then pointing out those on which attention and monitoring should be focused given their current or potential future relevance for the bank, while the risk mapping process is sometimes identified with the usual classification of operational risks in a simple frequency/severity matrix, what is really needed to map banks' internal processes in order to understand what could go wrong, where, and why, to set the basis for assessing potential frequency and the severity of potential operational events, and to define a set of indicators that can anticipate problems based on the evolution of the external and internal environments. Its aim is to arrive at a clear set of action plans that improve risk management controls, in areas where these are necessary and help the management of the organization's direct resources.

Benefits of risk mapping

- Promotes awareness of significant risks through priority ranking, facilitating the efficient planning of resources.
- Enables the delivery of solutions and services across the entire risk management value chain.
- Serves as a powerful aid to strategic business planning.
- Aids the development of an action plan for the effective management of significant risks.
- Assigns clear responsibilities to individuals for the management of particular risk areas.
- Provides an opportunity to leverage risk management as a competitive advantage.
- Facilitates the development of a strategic approach to insurance programme design.
- Supports the design of the client's risk financing and insurance programmes, through the development of effective/optimal retention levels and scope of coverage etc.