

MBSC 4001

M.B.A. DEGREE EXAMINATION, JUNE 2017.

Fourth Semester

**PROJECT MANAGEMENT IN SUPPLY CHAIN
OPERATIONS**

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions..

1. What are the financial considerations to be done when a project is selected?
2. What is matrix organization?
3. Explain critical path analysis method.
4. Discuss planning software.
5. What is periodic project audit?
6. State the steps of resource allocation technique.
7. What is work breakdown structure? What are the components of it?
8. Distinguish between independent project and contingency project.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

9. What is project life cycle? Discuss various phases of life cycle of project.
10. Explain the phases of project audit.
11. What do you mean by ex-post evaluation? Explain the procedure for such evaluation.
12. What are the requirements and principles of effective negotiation?
13. Distinguish between resource leveling and resource allocation.
14. Discuss the importance of linear responsibility matrix.
15. Explain the merits and demerits of CPM and PERT.
16. Discuss the project selection models.

PART C — (1 × 20 = 20 marks)

Compulsory.

17. The selection of the right project may be the single most important consideration which determines success or failure. Outline how your company selects projects, and give an example of how the following are considered :
 - (a) Payback period (relate to project risk)
 - (b) Discounted cash flow using the present forecast rate of interest
 - (c) Break-even analysis.

MBSC 4002

M.B.A. DEGREE EXAMINATION, JUNE 2017.

Fourth Semester

Operations and Supply chain Managements

INNOVATIONS AND R & D MANAGEMENT

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE out of Eight questions.

1. Explain different types of innovations.
2. Explain characteristics of creative organization.
3. What are the sources of innovative ideas?
4. Differentiate between Incremental Innovation and Radical Innovation.
5. What is the difference between a process innovation and a product innovation?
6. Explain the process of managing cost drivers in research and development projects.

7. Write a note on rigid project management structure.
8. Explain the role of government cooperation in institutional framework.

PART B — (5 × 10 = 50 marks)

Answer any FIVE out of Eight questions.

9. Explain the factors influencing organisational design.
10. Discuss the evolution of innovation management.
11. Explain different types of Research and Development activities.
12. Discuss innovation management in a start-up company in a scenario like that of India.
13. Discuss the parameters to assess the effectiveness of Innovation.
14. Explain the process of creating culture for innovation.
15. Role of society and nation's culture in R&D.
16. Many countries offer generous grants, credits, and incentives for research and development. How companies can leverage such tax incentives?

case include new markets, new intellectual property, and eventually new partnerships. Often competitors tend to imitate new services very quickly, but service innovation needs to be seen as a continuous process and the real challenge is to bring new services to market by the time others copy the previous generation. This creates another challenge linked to the return on investment for innovations that have a very short life-time. In other words, how to make enough profit during the short life-time of the innovation. Imitators that offer services linked to database research can be easily identified, however the better way around is to ignore these copies and invest time in New Service Development rather than defending the existing one.

Questions

1. How would the existing services in R&D process could benefit from 3 key factors that constitute successful innovation?
2. How the computer-aided research would will greatly enhance the speed and quality of R&D.

PART C — (1 × 20 = 20 marks)

Compulsory – Case Study.

17. Creax — Patent research and idea generation

Creax was started in 2000 by the managing director Simon Dewulf and it initially started out as a research programme on 'how to make engineering education more creative. CREAX analyzed all innovation methodologies (TRIZ, FA, QFD, DFMA) as a starting point of the research, from which it developed its own innovation methodology that is being utilized today as a way to solve problems, generate innovations and to find new markets. Initially the service offer by Creax included patent research, idea generation, innovation studies, methodological training, marketing studies for new technologies, and innovation software. Current offer includes also professional services for all the above-mentioned domains, whereas initially mechanical engineering made about 80% of all the business. Currently services make about 70% of the Creax income, and they ensure a stable income and growth. However, services do not entail similar a leverage effect as manufacturing, as they are linked to the billed hours. At present, the business employs 20 staff of which 16 are involved in the R&D, all of them on full time basis. In addition there are 2 contracted out persons working in the services R&D. Current R&D expenditures 7 include human resources,

patent databases, servers, scientific literature, software, and training related costs.

The nature and organisation of services R&D activities. R&D in services has been organized so that Creax seeks to employ staff with a wide range of knowledge backgrounds so that the problems can be solved utilizing different angles of knowledge, i.e. chemistry, mechanical engineering, etc. The R&D team has a set of objectives and budgeted resources. Typically the objectives are guided by the ongoing project work so that the specifications emerge from the research projects. The clients of Creax can benefit from the national and European level public support for R&D and Creax is also assisting them in finding the correct funding mechanism. In addition, Creax runs joint programmes with Universities on building tools for R&D. Creax also develops new services in interaction with the clients with the help of its partners. This means Creax relies on R&D partnerships that are long-term relations in nature. On average, Creax launches new or improved services on the markets every 6 months' time. Typical bottlenecks of R&D in services include lack of skilled people and time investments in the R&D tend to take place on cost time available for sales work.

The nature of the services R&D process. The key to success factor in the R&D service itself is the communication, interaction and integration with the partnering companies. This represents the

way forward as the company seeks to limit its risk in the Research activities, focusing resources more on the development type activities. Some typical stages in the R&D process can be identified. The first step is from no idea to good ideas: that is problem definition, patent research, functional analysis, idea generation with the CREAX methodology, evaluation of 150-200 idea concepts, and finally the feasibility analysis of the top 10 selected clients. The second alternative is from good idea directly to cash, which is done within the company itself. The key skills needed in services related R&D include: open mind, understanding of problems, creative skills, good analytical skills, communication skills and 'sharing of imagination'.

Typical sources for new ideas includes a database build by Creax on successful innovations, and also the function database, illustrating the CREAX methodology, as well as a systematic approach to idea generation. In a typical case it takes 7-12 months to develop a new idea and launch it to the markets. The outcomes of the R&D process are typically both gradual improvements and more fundamental changes to the existing services. Fundamental changes, and more radical innovations in particular, are encouraged in Creax. External resources are used in the R&D process mainly, when the feasibility of an idea is examined, and technology suppliers represent a free resource available for feasibility studies. Typical outcomes of the services R&D in Creax

MBSC 4003

M.B.A. DEGREE EXAMINATION, JUNE 2017.

Third Semester

Operations and Supply Chain Management

PROCUREMENT AND QUALITY MANAGEMENT

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions.

1. Explain the steps in quality control process.
2. Explain the cause of variation in quality.
3. What are the benefits of using control charts?
4. Explain the benefits of TQM.
5. Discuss the fundamental factors affecting quality.
6. Discuss the '9 M's of quality of product or service.
7. What are the advantages and disadvantages of control charts for attributes over those of variables?
8. Define e-procurement.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

9. Discuss the importance of inspection in an industry. Describe the various kinds of inspections.
10. Sub-groups of five items each are taken from a manufacturing process at regular intervals. A certain quality characteristics is measured, and \bar{X} and R values are calculated for each sub-group. After 25 subgroups $\bar{X} = 357.50$ and $R = 9.90$. Compute the control limits. It is assumed that all the points lie within both the control charts.
11. What are the barriers to TQM implementation? How are they eliminated?
12. How do control charts differ from acceptance sampling plans? Under what circumstances is each appropriate?
13. Explain briefly : (a) Material Requirement Planning (MRP) and (b) Just In Time Production System (JIT).
14. Explain different types of internet B2B exchanges used for e-procurement. How they improve the supply chain performance?

15. Explain briefly the framework of e-procurement.
16. Explain the following terms in reference to quality control : (a) Producer's risk, (b) Consumer's risk, (c) Average outgoing quality, (d) Single sampling plan of inspection and (e) p-chart.

PART C — (1 × 20 = 20 marks)

17. Case study :

What are all the essential Quality control measures that has been adopted by the most reputed manufacturing industries in India? Also elaborate the TQM practices in those industries.

services. This shift in attitude of the retailers is supported by research studies that it costs three to six times more to sell the products to the new customers than to existing customers that small increase in customer retention can lead to dramatic increase in profits. So the retail managers are required to identify the significance of CRM as a tool in influencing consumer perception and decision making.

Discuss:

Find out the relevance of CRM as tool for maintaining and retaining customers in Indian Retail Sector.

MBMM 4004/MBRM 4004/
MBSC 4004/MBLM 4002

M.B.A. DEGREE EXAMINATION, JUNE 2017.

Fourth Semester

Marketing/Retail/Operations and Supply Chain
Management

CUSTOMER RELATIONSHIP MANAGEMENT

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions.

1. Define CRM. Explain its features.
2. Explain about Cross - Selling and Up-Selling.
3. Write a note on Call Centre.
4. Explain the concept of Supply Chain Management.
5. What do you understand by Click Stream Analysis?
6. State the legalities of data use in CRM.

7. Explain the functions of CRM Development team. -
8. Write about "Event-Based marketing".

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

9. Describe about the success factors of CRM.
10. How do you create and manage effective Service Level Agreement (SLA)?
11. What is ERP? Explain its merits and demerits.
12. Explain the Market Basket Analysis (MBA).
13. Describe the process of CRM Implementation.
14. Explain the procedure involved in managing customer relationship.
15. Write about customer satisfaction measurement.
16. State and explain the features of Partner Relationship Management (PRM).

PART C — (1 × 20 = 20 marks)

Case Study. (Compulsory).

17. The Indian retailing sector is a booming one accounts for over 20% of the country's GDP and contributes 8% to total employment. The current estimated value of the Indian Retail sector is about 500 billion USD and expected to reach 1.3 trillion USD by 2020. The contribution of modern retail is currently 5% is expected to increase from 27 billion USD in 2020. The Indian retail sector is expected to grow at a CAGR of 15 to 20%. In this dynamic and competitive business environment understanding the perception of Indian consumers became the biggest challenge and very crucial in designing retail strategies. Building and maintaining relationship with the customers and maintaining loyalty of the customers has been identified as a major source of competitive advantage in the retail sector. So in this competitive business environment Customer Relationship Management (CRM) is emerging as one of the most important business activities to market the products and services. Now retailers are more focussed on customer retention by concentrating on providing more value to their best customers using targeted promotion and

seats within Chrysler's price targets, but Chrysler was unhappy with their safety, weight and comfort. After the supplier partnership agreement, ten Chrysler engineers moved into Johnson controls firm near Detroit to work with engineers of Johnson controls. After working together for five days together the partners agree on new weight, cost and performance standards that were so on target that they didn't have to be changed again.

As a result of this unique partnership, Chrysler was able to accept component costs from Johnson controls because of overall savings for Chrysler. At Chrysler's request, Johnson designed some rear seats with the capability of folding down to expand trunk space. But Chryslers' engineers insisted that Johnson design the special seats so that they could be installed the same way as other seats. This made each seat cost more, but Chrysler ultimately could save about \$ million overall in final assembly costs. Thanks to its successful partnership with Johnson controls and other major suppliers, Chrysler met its stringent cost and time deadlines for the Neon — and came out with Detroit's first profitable subcompact car in the bargain.

Questions:

- (a) Discuss the approach of Chrysler's operations managers in developing and building the Neon model.
- (b) What benefits a manufacturing firm can achieve from its suppliers, through outsourced manufacturing?

MBSC 4005

M.B.A. DEGREE EXAMINATION, JUNE 2017.

Fourth Semester

Operations and Supply Chain Management
GLOBAL SUPPLY CHAIN MANAGEMENT

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions.

1. Explain the strategies to manage a global supply chain.
2. Describe the global technology force.
3. Discuss the causes of global risk in supply chain.
4. What is supply chain security? Explain with examples.
5. Distinguish between local autonomy and control logistics.
6. State the importance of system integration.
7. Explain how the vehicle technology can reduce environmental impact of freight transport.
8. Describe how to manage waste in supply chain.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

9. Explain the various forces of global supply chain management.
10. Describe how to achieve international development in global supply chain.
11. Discuss the various types of strategies and its objectives available in global supply chain.
12. Discuss the issues in international supply chain management.
13. List down various problems of exporting and importing that may be encountered in international supply chain management and the ways to overcome them.
14. Explain how global logistics became the main force in importing and exporting.
15. In what way the waste management influence the green supply chain? Justify.
16. List out the various indicators of green supply chain.

PART C — (1 × 20 = 20 marks)

Case study — Compulsory.

17. Chrysler Unseats its Competition with Supplier Partnerships

When Lee Iacocca gave the go ahead to Chrysler's Neon Project in 1990, he was taking a big risk. Until that time; no American subcompact car had been able to turn a profit for its manufacturer. But Chrysler's Neon ultimately reversed this trend; mainly because of the unprecedented partnerships Chrysler entered into with its suppliers in the earliest stages of the Neon Project.

Robert Marcell, head of Chrysler's small – car division, knew that partnerships held the key to Chrysler's success. In order to make a profit, Marcell had to meet stringent production schedules for which he had to bring suppliers on board early. This is crucial because outside companies would be furnishing 70 percent of the value of the car in the form of tyres, seats, suspension, and other components.

In an unprecedented move, Marcell allowed engineers from key potential suppliers to drive the first Neon prototype during an October 1990 meeting. His team then issued a cost challenge, inviting suppliers to make use of sensitive Chrysler financial data and ideas in a mutual effort to cut costs.

Companies who entered into this unique partnership found that collaborating with Chrysler was a two-way street. For example, Johnson controls, Inc was initially to make Neon's