

**ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Commonwealth MBA / MPA Programme)**

OPERATIONS MANAGEMENT (5568)

CHECK LIST

SEMESTER: AUTUMN, 2013

This packet comprises the following material:-

1. Text Book
2. Assignment No. 1, 2
3. Assignment Forms (two sets)
4. Course Outline

In this packet, if you find anything missing out of the above mentioned material, please contact at the address given below:

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WARNING

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**

Course: Operations Management (5568)

Semester: Autumn, 2013

Level: Executive MBA/MPA

Instructions:

- a) All written assignment must be well organized, presented in an easy-to-read format and neat. Moreover, pay particularly close attention to grammar, spelling, punctuation and understandability. Communication is extremely important in this course.
 - b) Documentation is likewise very important. Un-supported statements or opinions are worth less to the reader, who desires to verify your finding. Complete and specific documentation is mandatory. Also, your reference should be to primary sources, except in rare unusual situation.
 - c) Quoting should be kept to an absolute minimum.
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Guidelines for Doing Assignments

We expect you to answer each question as per instructions in the assignment. You will find it useful to keep the following points in mind:

1. **Planning:** Read the assignments carefully, go through the Units on which they are based. Make some points regarding each question and then rearrange them in a logical order.
2. **Organization:** Be a little selective and analytical before drawing up a rough outline of your answer. Give adequate attention to question's introduction and conclusion.
 - a) The answer is logical and coherent,
 - b) It has clear connections between sentences and paragraphs,
 - c) The presentation is correct in your own expression and style.
3. **Presentation:** Once you are satisfied with your answer, you can write down the final version for submission. It is mandatory to write all assignments neatly. If you desire so, you may underline the points you wish to emphasize. Make sure that the answer is within the stipulated word limit.

Wishing you all the best

ASSIGNMENT No. 1

Total Marks: 100

- Q. 1 (a) It is often said that the operation management is a transformation process. Do you agree with this statement? Support your answer with reasons. **(10)**
(b) What are the roles and responsibilities of top management of an organization in developing and implementing TQM concepts in an organization? **(10)**
- Q. 2 (a) Explain the importance and application of forecast in production operation management. **(10)**
(b) A request has gone out to all sales people in a company to make forecast their sales territories for next year. These forecasts will be aggregated by product lines, districts, regions and –finally- at the national level. Describe the problems in using their forecasting for planning aggregate levels of operations and scheduling decisions. **(10)**
- Q. 3 (a) How does a quantitative forecasting differ from a qualitative forecasting? **(10)**
(b) What do you understand by time series analysis? Compare time series analysis with other methods of forecasting. Briefly summarize the strength and weakness of various methods. **(10)**
- Q. 4 (a) What relationship exists between layout decisions, capacity decisions, and scheduling? **(10)**
(b) Compare the manual and quantitative models for process layout design. What could be the advantages of each of the model? **(10)**
- Q. 5 (a) MIS is a technique for making programmed decisions. Draw a programmed decisions in a manufacturing subsystems. **(10)**
(b) What is an integrated manufacturing information system? Draw a detail flow diagram if an integrated manufacturing information system for your manufacturing unit. **(10)**

ASSIGNMENT No. 2

Total Marks: 100

Instructions:

1. This assignment is a research-oriented activity. You are required to develop a case study and submit to the tutor for evaluation prior to the final examination. The last date of this assignment will be notified separately by our directorate of regional services and the same will be communicated to you directly as well as through approved study centers assigned to you.
2. You will have to participate in the activity fully, actively and practically to be eligible to sit in the final examination of the course.

3. For the preparation of this assignment, you should first thoroughly review the Case Study Guidelines and develop a scholarly material of the same giving references, quotations, and extracts of various scholars and experts. Then visit any business/commercial organization and study the relevant practical aspects there. Combining the theoretical and practical aspects, develop a comprehensive case study of 1500-3000 typed words to be submitted to your tutor.
4. Prepare a copy of this assignment and submit to your tutor for your evaluation.
5. You should prepare the transparencies, charts, or any other illustrative material for effective presentation.
6. If you fail to present this assignment in the class, then you will not be able to sit in the final examination conducted by AIOU.

Requirement:

You are required to select an organization of your own choice, find out the problematic situation or dilemma relevant to your subject in that organization, which may be current or happened in past. After highlighting the problem, design a case study upon the dilemma of that organization. Guidelines to design case study are attached herewith. Read carefully the guidelines and formulate case study strictly following these.

Guidelines to Develop a Case Study

What a Case study is?

A case study is written summary or syntheses of real-life cases based upon data and research. It suggests a story with a beginning, middle and end. It is a challenge with a result or a problem with a solution. Approach to design case study is

- **Challenge**
- **Solution**
- **Result**

Case studies identify appropriate strategies for the resolution of dilemma of the case. Case study is a part of effective knowledge management. It is specific and easily digestible story format which comes up with a solution. Case study is the practical implication of business studies. It enriches your exposure to field work and your managerial and executive expertise to handle organizational issues.

Business case study:

To summarize real-life business scenarios, a problem occurring in organizational setup or a dilemmatic situation, leading to operational misconduct and inefficiency in organizations is business case study. The issue may be from any field like finance, HRM, Management, Strategic Management, Production, Marketing, and General Operations etc.

Case Study Layout:

- Title page
- Abstract
- Introduction
- Major characters
- Company/organizational background
- Industry profile/context
- Dilemma of case/ storyline/ Case presentation
- Management Outcome

- Conclusion
- Discussion
- Exhibits
- Acknowledgement
- References

Title page:

The title page will contain the full title of the case study. A title must not be vague or non-specific because it may not attract readers' attention. The two most common formats of titles are nominal and compound. A nominal title is a single phrase, for example "A case study of hypertension which responded to spinal manipulation." A compound title consists of two phrases in succession, for example "Response of hypertension to spinal manipulation: a case study." Keep in mind that title of articles average between 8 and 9 words in length.

Abstract:

An abstract consists of a short version of the whole paper. There are no headings within the abstract. The author simply tries to summarize the paper into a story which flows logically.

Introduction:

The introduction is where we convey case study to the reader. It is useful to begin by placing the study in a historical or social context. If there is something especially challenging about the diagnosis or management of the condition that we are describing, now is our chance to bring that out. Introduction doesn't need to be more than a few paragraphs long, and the objective is to have the reader understand clearly, but in a general sense, why it is useful for them to be reading about this case. Avoid using jargons specifically in introduction. Introduction should create a dramatic interest.

Major characters:

In the case there are assumed characters around whom the whole story revolves. Dilemma is made easy to understand through these characters. Select your characters with their names and designations.

Company/organizational background:

Reporting of background should be very selective. It is not the history of whole organization but a history that relates to the problem or decision. Avoid evaluating or misleading descriptions. Information about the organization should shed light on the problem.

Industry profile/context:

Industry profile gives the details of the context within which the organization operates with pressures, threats, laws, information on competitors and other external factors that impact the organization.

Case Dilemma/ Storyline/ Presentation:

This is the part of the case in which we introduce the raw data. First, describe the complaint that brought the situation to you. Next, introduce the important information that is obtained from history-taking. There is no need to include every detail – just the

information that helped to settle on diagnosis. Also, try to present dilemma information in a narrative form – full sentences which efficiently summarize the results of questioning. The next step is to describe the results of our clinical examination. Again, we should write in an efficient narrative style, restricting ourselves to the relevant information. It is not necessary to include every detail in our clinical notes. Also, you should describe the actual results, since not all readers will have the same understanding of what constitutes a “positive” or “negative” result. Dilemma is the main problem or the main motive to write up a case so it should be logical, clearly narrated, well structured and very near to reality. It must not be self created or assumption based. The case must realistically grapple with the problem and appreciate the complexity of decision making in the real world. It is also important that case does not contain holes that are manipulative and that lead readers to feel that games are being played with them. A balance must be attained between giving enough material to make informed choice or decisions, but not so much material that the answer is given away.

Management and Outcome:

In this section, we should clearly describe the plan for settlement of the situation, and the outcome. It is useful for the reader to know what type of remedial actions have been taken. Additionally, you should be as specific as possible in describing the remedial action that was used. If some techniques have been used you are required to elaborate clearly those techniques. Remember that our case study may be read by people who are not familiar with managerial techniques.

Conclusion:

Here the problem and options for consideration are restated but the decision point is open for students to resolve. The case should never end with a ‘yes’ or ‘no’ or ‘right’ or ‘wrong’ answer. The conclusion should create tension and suggest options for the readers. Successful cases have no definite conclusions.

Discussion:

In this section identify any questions that the case raises. It is not compulsory to provide a complete physiological explanation for everything that is observed. We summarize the lessons learned from this case.

Exhibits:

If you have used any tables, figures or photographs, they should be accompanied by a succinct explanation. Tables, figures and photographs should be included at the end of the case. Exhibits are the supporting supplementary material of the data given in the whole case study. The purpose of each exhibit should be very clear. If an exhibit has been used in the case, it should be very simple and clear. These are used to simplify and clarify the text of the case and to help with resolution of dilemma and the making of decision.

Acknowledgments:

If someone provided assistance with the preparation of the case study, thank them briefly. It would generally be regarded as excessive and inappropriate to thank others, such as teachers or colleagues who did not directly participate in preparation of the case.

References:

Only use references that you have read and understood, and actually used to support the case study. Do not use more than approximately 15 references without some clear justification. Try to avoid using textbooks as references, since it is assumed that most readers would already have this information. Also, do not refer to personal communication, since there is no way of checking this information.

Types of case study**Types on the basis of structure**

- **Open ended case study**
The case studies having no questions at the end are open ended case studies. These case studies are end up with a tense situation for readers. Readers themselves draw the questions and find solution to dilemma.
- **Close ended case study**
The case studies ending up with questions are close ended case studies. These are the most common types of case studies. These are easy to find solution for readers. The questions are drawn on the basis of dilemma and storyline of case.

Types on the basis of subject matter**Exploratory case study**

An exploratory case study is the type of case study where the researchers or case study designer wants to explore some unexplored. Where considerable uncertainty exists about program operations, goals, and results, the exploratory case study is designed to identify questions, select measurement constructs, and develop measures.

Program implementation case study

A program implementation case study helps discern whether implementation complies with intent. This case study may also prove useful when concern exists about implementation problems. Extensive, longitudinal reports of what has happened over time can set a context for interpreting a finding of implementation variability.

Program effects case study

Program effects case studies can determine the impact of programs and provide inferences about reasons for success or failure. As with the program implementation case study, the evaluation questions usually require generalizability and, for a highly diverse program, it may become difficult to answer the questions adequately and retain a manageable number of sites. But methodological solutions to this problem exist. After identifying findings of specific interest, researchers may then implement case studies in selected sites to maximize the usefulness of the information.

Company field cases

These cases are developed in cooperation with the participating company, have company approval and are the most common types of cases.

Individual field cases

These cases focus upon specific individuals e.g. role of a woman in NGO leadership.

General experience cases

These cases are written on the basis of case writer's knowledge, a story is invented. Generally these cases are simple. Complex cases demand a real organization.

Published information cases

These cases are derived from published sources such as newspapers, research reports, journals etc. and as such, must contain extensive footnotes. It must be made clear that such cases have been written up based on published sources. In these cases there is no need for company release.

There are many other types of case studies in practice. You can work any of them but your work should be very logical and well structured. Nothing must be vague leading to wastage of time and efforts.

Important Points

- Write in past tense
- Direct quotes are written in present tense
- Avoid jargon
- Logically structured
- Free of grammatical errors
- Define technical terms if not common
- Avoid adjectives and adverbs
- Avoid ambiguities and inconsistencies
- Refer to actors by last name consistently
- Do not capitalize position titles
- Number all exhibits and refer to them in text
- Writing should be clear, concise and accessible.
- Cases should be between 1500-3000 words in length.

Important Note

You are advised to structure your case study in close ended structure having questions at the end.

Course Outlines **OPERATIONS MANAGEMENT (5568)**

- 1. PRODUCTION AND OPERATION MANAGEMENT: AN OVERVIEW**
 - 1.1 Scope and significance
 - 1.2 Systemic View of Operations
 - 1.3 Factors of Production
 - 1.4 Productive Use of Resources
 - 1.5 Environmental Concerns of Operations
 - 1.6 Social Concerns of Operations
 - 1.7 Operations management is Multidisciplinary
 - 1.8 Whither Operations Manager in India

- 2. PRODUCTIONS SYSTEMS: ISSUES AND ENVIRONMENT**
 - 2.1 Introduction Role of Production Management
 - 2.2 Role of Production System
 - 2.3 Production/Operations Management a System View Point
 - 2.4 Production System Design
 - 2.5 Productivity Improvement
 - 2.6 Upcoming Issues of Production Systems
 - 2.7 Production Systems and Information Technology

- 3. TOTAL QUALITY MANAGEMENT**
 - 3.1 Introduction
 - 3.2 TQM: A Historical Perspective
 - 3.3 Quality Terminology
 - 3.4 Understanding the Customer
 - 3.5 Understanding and Improving the Process
 - 3.6 Employee Involvement and Improvement
 - 3.7 ISO 9000: the International Quality system Standard

- 4. NEED AND IMPORTANCE OF FORECASTING**
 - 4.1 Introduction
 - 4.2 Concept of forecast
 - 4.3 General Steps in the Forecasting Process
 - 4.4 Importance and Applications of Forecasts in production/Operations Management.

- 5. QUALITATIVE METHODS**
 - 5.1 Introduction
 - 5.2 Judgmental Forecasting
 - 5.3 Opinion-Capture Techniques
 - 5.4 Forecasting Based on Cross-Impact Analysis

- 6. QUANTITATIVE METHODS OF FORECASTING**
 - 6.1 Introduction
 - 6.2 Forecasting
 - 6.3 Application to Different Functional Areas
 - 6.4 Specific Forecasting Methods
 - 6.5 Main Classes of Quantitative Models
 - 6.6 Forecast Error
 - 6.7 Selecting a Suitable Forecasting Method

- 7. CAPACITY PLANNING**
 - 7.1 Introduction
 - 7.2 Aspects of Capacity Planning
 - 7.3 Determination of Capacity Requirements
 - 7.4 Evaluation of Alternative Plant Sizes
 - 7.5 Determination of Equipment Requirements

- 8. FACILITIES PLANNING**
 - 8.1 What is Facility Planning
 - 8.2 Need for Facility Planning
 - 8.3 Facility Planning-Objectives
 - 8.4 Types of Layouts
 - 8.5 Product Versus Process Layout
 - 8.6 Developing the Process Layout
 - 8.7 Conventional Approach for Developing Process Layout
 - 8.8 Conventional Approach for Developing Product Layout

- 9. WORK SYSTEMS DESIGN**
 - 9.1 Introduction
 - 9.2 Job Design
 - 9.3 Work measurement
 - 9.4 Compensation

- 10. MANAGING INFORMATION FOR PRODUCTION SYSTEM**
 - 10.1 Introduction
 - 10.2 The Information-Oriented Society and Corporate Activities
 - 10.3 Need of the Systems
 - 10.4 Cross Functional systems and Operational Planning
 - 10.5 Needs of production management and Work Organizations
 - 10.6 Information Needs-The Business Appraisal
 - 10.7 Potential Benefits in Improving Management Information System
 - 10.8 Information
 - 10.9 Common Information System/Data Base
 - 10.10 Quality
 - 10.11 Development of Production-Material Information System

- 11. AGGREGATE PRODUCTIN PLANNING**
 - 11.1 Introduction
 - 11.2 Linking Long Term and Short Term Planning
 - 11.3 The Purpose of Aggregate Plans
 - 11.4 Steps in Aggregate Planning
 - 11.5 Dimensions of Production Capacity
 - 11.6 Managerial Importance of Aggregate Plans

- 12. JUST-IN-TIME (JIT)**
 - 12.1 Introduction
 - 12.2 Stock Points in a Production-Distribution
 - 12.3 Just-In-time
 - 12.4 Characteristics of Just-In-Time System
 - 12.5 The Just-In-Time Manufacturing Philosophy
 - 12.6 Elements of Manufacturing
 - 12.7 JIT Purchasing

- 12.8 The Kanban System
- 12.9 JIT Implementation in Industries
- 13. SCHEDULING & SEQUENCING**
 - 13.1 Introduction
 - 13.2 Situation Requiring Scheduling
 - 13.3 Classifying Production Systems
 - 13.4 Scheduling Mass Production System
 - 13.5 Scheduling Batch Production Systems
 - 13.6 Scheduling Job Production Systems
 - 13.7 General Principles of Scheduling
- 14. ISSUES IN MATERIALS MANAGEMENT**
 - 14.1 Introduction
 - 14.2 The Concept of Materials
 - 14.3 Importance of Materials
 - 14.4 Need for materials Management
 - 14.5 Issues in materials Management
- 15. INDEPENDENT DEMAND INVENTORY SYSTEMS**
 - 15.1 Introduction
 - 15.2 Basic Inventory Model
 - 15.3 Model Sensitivity
 - 15.4 Gradual Replacement Model
 - 15.5 Basic Inventory Model With Blacklogging Allowed
 - 15.6 Bulk Discount Model
 - 15.7 Independent Demand Systems for Multiple products
 - 15.8 Models with Uncertain Demand
 - 15.9 Selective Control of Inventory Items
- 16. DEPENDENT DEMAND INVENTORY SYSTEMS**
 - 16.1 Introduction
 - 16.2 What is MRP?
 - 16.3 Material Requirement planning (MRP)
 - 16.4 MRP Versus Order-Point Systems
 - 16.5 Some Important Elements of MRP
 - 16.6 Manufacturing Resource Planning (MRP II)
 - 16.7 MRP Computations
 - 16.8 MRP Implementation
 - 16.9 Some Misconception About MRP
- 17. TOTAL PRODUCTIVE MAINTENANCE (TPM)**
 - 17.1 Introduction
 - 17.2 Motivation and Identifying Characteristics of TPM
 - 17.3 Eliminating Six Big Losses
 - 17.4 Chronic and Sporadic Losses
 - 17.5 Autonomous Maintenance
 - 17.6 TPM Promotion

18. ADVANCE MANUFACTURING SYSTEM

- 18.1 Introduction
- 18.2 Manufacturing systems: Evolution & Competitiveness
- 18.3 Classification of Process Technology
- 18.4 Computer Integrated Manufacturing (CIM)
- 18.5 Computer-Aided Design (CAD)
- 18.6 Group Technology (GT)
- 18.7 Computer-Aided Process Planning (CAPP)
- 18.8 Robotics
- 18.9 Computer-Aided Process Planning (CAPP)
- 18.10 Manufacturing Planning and Control System
- 18.11 Flexible Manufacturing System
- 18.12 Just-In-Time Manufacturing System (JIT)
- 18.13 Total Quality Management Systems
- 18.14 Advanced MRP Type Systems
- 18.15 Optimized Production Technology (OPT)

19. COMPUTERS IN OPERATIONS MANAGEMENT

- 19.1 Introduction
- 19.2 Continuous Performance Improvements
- 19.3 Computers in Demand Forecasting and Order Processing
- 19.4 Computers in Design and Drafting
- 19.5 Computers in Purchasing Outsourcing
- 19.6 Computers in Materials management
- 19.7 Computers in Operations Planning, Scheduling and Control
- 19.8 Computers in manufacturing
- 19.9 Computers in process Control and Quality Management
- 19.10 Computer in Terotechnology and productive maintenance
- 19.11 Computers in Automatic Assemblies
- 19.12 Computers in Finished Product Warehouses
- 19.13 Computers in distribution (Outbound Logistics)
- 19.14 Future Trends in Operations Management
- 19.15 Emerging Importance of Information Technology

