

# \* Application of O.R.

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O.R. is mainly concerned with the techniques of applying scientific knowledge, besides the development of science.

It provides an understanding which gives the expert/manager new insights & capabilities to determine better solutions in this decision-making problems, with great speed, competence & confidence.

In recent years, O.R. has successfully entered many different areas of research in

- Defence,
- Government,
- Service organisations and Industry

We briefly describe some applications of O.R. in the functional areas of management.



# 1. Finance, Budgeting and Investment

Page No.	
Date	

- (a) cash flow analysis, long range capital requirements, dividend policies, investment portfolios.
- (b) credit policies, credit risks and delinquent account procedures.
- (c) claim and complaint procedure

## 2. Marketing

- (a) Product selection, timing, competitive actions.
- (b) Advertising media with respect to cost and time.
- (c) Number of salesman, frequency of calling of account etc.
- (d) Effectiveness of market research

## 3. Physical Distribution

- (a) Location & size of warehouses, distribution centers, retail outlet etc.
- (b) Distribution policy.



#### 4. Purchasing, Procurement & Exploration

- (a) Rules of Buying
- (b) Determining the quantity & timing of purchase
- (c) Bidding policies and vendor analysis
- (d) Equipment replacement policies.

#### 5. Personnel

- (a) Forecasting the manpower requirement, recruitment policies & job assignments
- (b) selection of suitable personnel with due consideration for age & skills etc.
- (c) Determination of optimum number of persons for each service centre.

#### 6. Production

- (a) scheduling & sequencing the production run by proper allocation of machines.
- (b) calculating the optimum product mix.
- (c) selection, location & design of the sites for the production plant.



## 7. Research and Development

Page No.	
Date	

- (a) Reliability & evaluation of alternative designs
- (b) control of developed projects.
- (c) Co-ordination of multiple research projects
- (d) Determination of time & cost requirements