

A Review of Scope of Operation Research in Life Skills

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Abstract--- Operation research is the most important techniques for obtaining maximum advantage or output or efficiency. The scope of Operation research mainly in different fields like Agriculture, Marketing Industry etc. we aware of the scope of operation research and its methods in our life skills the we gain maximum advantages.

Keywords: - Operation Research, Agriculture, Marketing, Finance, Industries, Linear Programming

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I. INTRODUCTION

Operation Research is a collection of scientific techniques used to arrive at an optimum decision in the problems of managerial nature. 'Operation Research (OR)' has been defined so far in various ways so it is important and interesting to give below a few options about the definition of OR.

- 1) OR is a scientific method of providing executive departments with a quantitative basis for decision regarding the operations under their control.
- 2) OR is a scientific method of providing executive with an analytical and objective basis for decision.
- 3) OR is the application of scientific methods, techniques and tools to problems involving the operations of systems so as to provide these in society in control of the operations with optimum solutions to the problem.
- 4) OR is a scientific approach to problem solving for executive management.
- 5) OR is an experimental and applied science devoted to observing, understanding and predicting the behavior of purposeful man – machine system and OR workers are activity engaged in applying this knowledge to practical problems in business, government and society.

II. SCOPE OF OPERATION RESEARCH

In its recent years of organized development, OR has entered successfully many different areas of research for military, government and industry. The basic problem in most of the developing countries in Asia and Africa is to remove poverty and hunger as quickly as possible. So there is a great scope for economists, statisticians, administrators, politicians and the technicians working in a team to solve

this problem by an OR approach.

1) In Agriculture:

With the explosion of population and consequent shortage of food, every country is facing the problem of

- a) Optimum allocation of land to various crops in accordance with the climatic conditions.
- b) Optimum distribution of water from various resources like canal for irrigation purpose.

Thus there is a need of determining best policies under the prescribed restrictions.

Hence a good amount of work can be done in this direction.

2) In Finance:

In these modern times of economic crisis, it has become very necessary for every government to have a careful planning for the economic development of her Country. OR techniques can be applied:

- a) To maximize the per capital income with minimum resources.
- b) To find out the profit plan for the company.
- c) To determine the best replacement policies, etc.

3) In Industry:

If the industry manager decides his policies only on the basis of his past experience and a day comes when he gets retirement, then a heavy loss is encountered before the industry. This heavy loss can immediately be compensated by newly appointing a young specialist of OR techniques in business management. Thus OR is useful to the industry Director in deciding optimum allocation of various limited resources such as men, machines, material, money, time etc. to arrive at the optimum decision.

4) In Marketing:

With the help of the marketing manager can decide:

- a) Where to distribute the products for sale so that the total cost of transportation etc. is minimum.
- b) The minimum per unit sale price.
- c) The size of the stock to meet the future demand.
- d) How to select the best advertising media with respected to time, cost etc.

5) In Personnel Management:

A personnel manager can use OR techniques:

- a) To appoint the most suitable person on minimum salary
- b) To determine the best age of retirement for the employees
- c) To find out the number of persons to be appointed on full time basis when workload is seasonal (not continuous).

6) In Production Management:

A Production manager can use OR techniques:

- a) To find out the number and size of the items to

be produced.

b) In scheduling and sequencing the production run by proper allocation of machines.

c) In calculating the optimum product mix.

d) To select, locate and design the sites for the production plants.

7) *In L.I.C.:*

OR approach is also applicable to enable the L.I.C. offices to decide:

a) What should the premium rates for various modes be of police?

b) How best the profits could be distributed in the cases of with profit polices? Etc.

“Operations Research is the application of scientific methods, techniques and tools to problems involving the operations of a system so as to provide to those in control of the system with optimum solutions to the problems.”

The Programming Problems are concerned with optimizing (i.e. maximizing or minimizing) the collection of techniques used for solving such problems is called mathematical programming. Linear programming, a simple and most commonly used technique, is a particular case of mathematical programming.

III. CONCLUSION

In this review paper describe the number of fields there is a scope of OR. Use of Linear Programming technique we have to minimize the cost and maximize the profit.

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