

## UNIT I

### PROJECT EVALUATION AND PROJECT PLANNING

#### 9. Cost Benefit Evolution Technology

Cost Benefit analysis is thing that everyone must do so as to think of a powerful or an efficient system. But while thinking out on cost and benefit analysis, we also need to find out factors that really affect benefits and costs of system. In developing cost estimates for a system, we need to consider some of cost elements. Some elements among them are hardware, personnel, facility, operating and supply cost. The following are the cost factors :

1. **Hardware cost:**

Hardware cost includes actual purchase and peripherals (external devices) that are connected to computer. For example, printer, disk drive etc. Actually, finding actual cost of hardware is generally more difficult especially, when system is shared by various users so as to compared to a system which dedicated stand alone . In some case, best way is to treat it as operating cost.

2. **Personnel costs:**

Personnel costs includes EDP staff salaries and benefits as well as pay for those who are involved in process of development of system. Cost occurred during development of system which are one time costs and are also called development cost. Once system is installed, cost of operating and maintaining system becomes recurring cost that one has to pay very frequently based on requirement.

3. **Facility cost:**

Facility cost is amount of money that is spent in preparation of a site that is physical where application or computer will be in operation. This includes wiring, flooring, lighting and air conditioning. These costs are treated as one- time costs and are included into overall cost estimate of candidate system.

4. **Operating costs:**

These includes all costs associated with day-to-day(everyday) operation of system and amount depends on number of shifts, nature of applications. There are various ways of covering operating costs. One approach is to treat operating costs as an overhead.

Another approach is to charge money from each authorized user for amount of processing they require from system. Amount charged is based on computer time or time they spend on system, staff time and volume of output produced .

#### 5. **Supply costs :**

Supply cost are variable costs that increase with increased use of paper, disks and like. They should be estimated and included in overall cost of system.

A system is also expected to provide health benefits. First task is to identify each benefit and then assign some value to it for purpose of cost/ benefit analysis. Benefits may be tangible and intangible, direct or indirect.

Two major benefits are improving performance and minimizing cost of processing of system. The performance category emphasizes improvement in accuracy of or access to information and easier access to system by authorized users. Minimizing costs through an efficient system – error control or reduction of staff- is a benefit that should be measured and included in cost/benefit analysis.

The determination of costs and benefit entails following steps :

1. Identify the costs and benefits pertaining to given project.
2. Categorize the various costs and benefits for analysis.
3. Select a method of evaluation.
4. Interpret the results of the analysis.
5. Take action.