I. In short-run decision making, differential costs and revenues are generally the economic figures which should be compared when trying to decide between the various alternatives under consideration.

- differential revenues and costs are future costs and revenues which differ between alternatives.

- another term used for "differential" is "incremental," and these two terms can be used interchangeably.

- marginal costs or revenues, on the other hand, refer to the increase in total costs resulting from the production and/or sale of one more unit.

- marginal costs are often used to estimate incremental or differential costs.

II. Differential Costs

- there is no general category of costs that can be labeled differential; that is, differential costs always relate to the specific alternatives being analyzed.

- generally any variable cost related to the activities being analyzed will makeup most of the differential costs.

- but there may be some types of fixed costs which are incremental in nature under the decision alternatives being considered; if this be the case, then such costs are part of the differential costs and must be considered in the decision process.

- examples: (1) an increase in advertising expenditures.

(2) an increase in total supervisors' salaries and liability insurance because a special order has been accepted and can only be produced by starting up a third shift in the factory.
III. Differential Revenues

- these are future revenues which differ between the alternatives being considered.

- when comparing different alternatives, three distinct situations may exist; these three basic situations are:

  1. operating at less than full capacity and the decision will have no effect on other product sales or revenue-generating activities.

     - simply compare the incremental revenues and cost of the different alternatives; no consideration of lost contribution which is presently being generated need be considered.

  2. operating at less than full capacity but the decision will effect other product sales or revenue-generating activities.

     - must consider the revenues and costs of present products and activities which will be effected by the decision made as well as the estimated results directly generated from the decision.

  3. operating at full capacity and the decision will effect other product sales or revenue-generating activities.

     - must consider the revenues and costs of present products and activities which will be effected by the decision made as well as the estimated results directly generated from the decision. (same as (2) above.)

IV. Some Other Key Cost Concepts

- Opportunity Cost: the potential benefit that is foregone from not following the best alternative course of action.

- Sunk Costs: past costs about which nothing can be done: they are irrelevant to decisions.
V. Types of Short-Run Decisions:

(1) Product Pricing
(2) Special Orders
(3) Elimination of Products
(4) Elimination of a Department
(5) Discontinuing Sales To A Certain Type of Customer
(6) Further Processing of Joint Products
(7) Make-or-Buy
(8) Maximizing Utilization of a Scarce Resource

VI. Decision Criteria for Short-Run Decisions

(1) Product Pricing

- select the price which will maximize total contribution margin.

(2) Special Orders

- compare the incremental revenues and the incremental costs related to the order; if the comparison indicates that overall contribution margin to the company will be increased, then approve the decision.

  - be sure to consider if this order will have any effect on regular sales and revenues.

  - be sure you are not estimating the incremental costs from per unit cost data that includes allocated, indirect fixed costs which actually will not be increased by the taking of this order.

(3) Elimination of Products

- compare the incremental revenues which will be sacrificed with the incremental costs which will be saved.

  - be careful in analyzing cost savings; be particularly careful that you are not assuming a cost will be saved which is actually an indirect, allocated cost which will in fact not be eliminated and will only be reallocated.

(4) Elimination of a Department

- compare either (1) the incremental revenues which will be sacrificed or (2) the estimated outside charge which will be incurred to provide the service support currently provided by this department, with the incremental costs which will be saved if this department is eliminated.

  - be careful in analyzing cost savings;
- be particularly careful that you are not assuming a cost will be saved which is actually an indirect, allocated cost which will in fact not be eliminated and will only be reallocated.

(5) Discontinuing Sales to a Certain Type of Customer

- compare the incremental revenues which will be sacrificed with the costs which no longer will be incurred.

- be careful in analyzing cost savings;

- be particularly careful that you are not assuming a cost will be saved which is actually an indirect, allocated cost which will in fact not be eliminated and will only be reallocated.

(6) Further Processing of Joint Products

- compare the incremental revenues which will be generated with the incremental costs which will be incurred on the additional processing step under consideration.

- the incremental revenues are determined by comparing the revenues which will be generated if the product is processed this additional step with the revenues which would be generated from the sale of the output without additional processing.

- the incremental costs are only the costs incurred to perform this additional processing step; thus, costs incurred in prior steps, including any joint costs which were incurred are totally irrelevant.

(7) Make-or-Buy

- compare the incremental, out-of-pocket type costs of making the product internally with the definite out-of-pocket costs (price) of purchasing the product externally.

- essentially in this analysis, costs which will be eliminated if the product is no longer produced internally (i.e., the benefits of not producing internally) must be compared with the costs (purchase price, freight charges, insurance, sales taxes, import duties, etc.) of an outside purchase.
Maximizing Utilization of a Scarce Resource

- the following calculation process should be applied:

  - 1st: determine the contribution margin per unit of the scarce resource for each product or service;

  - 2nd: rank all of the products on the basis of this contribution margin per unit of scarce resource, i.e. this calculated "productivity measure" for the scarce resource.

  - 3rd: assign the scarce resource (machine time, skilled labor hours, limited raw materials, etc.) to the products based on the determined rankings.

  - 4th: continue to assign the scarce resource until it has been depleted. Of course, no product with a negative contribution margin should normally be considered.

  - Note: if a company is operating at less than full capacity, then any product which has a positive contribution margin should normally continue to be produced.

VII. Qualitative Considerations

A. In all decision analyses, after the relevant monetary impact of the different alternatives under consideration has been determined, then non-quantitative issues must be considered.

B. Such factors as employee morale, customer long-term reactions, governmental intervention, quality of the product which will be produced, the amount of risk which is acceptable or appropriate, dependency on particular vendors, legal violations, ethical considerations and meeting social responsibilities must all be considered.

C. In the final analysis, these qualitative considerations must be reviewed along with the economic impact of any decision in arriving at a final decision.

D. Always attempt to identify the qualitative issues which need to be considered. Such issues can sometimes outweigh the immediate economic benefits which can be realized under the decision circumstances.