CHAPTER 9

Differential Analysis: The Key to Decision Making

COST CONCEPTS FOR DECISION MAKING

Only those costs and benefits that differ in total between alternatives are relevant in a decision. If the total amount of a cost will be the same regardless of the alternative selected, then the decision has no effect on the cost, so the cost can be ignored.

DIFFERENT COSTS FOR DIFFERENT PURPOSES

We need to recognize a fundamental concept from the outset of our discussion—costs that are relevant in one decision situation are not necessarily relevant in another. This means that managers need different costs for different purposes. For one purpose, a particular group of costs may be relevant; for another purpose, an entirely different group of costs may be relevant. Thus, each decision situation must be carefully analyzed to isolate the relevant costs. Otherwise, irrelevant data may cloud the situation and lead to a bad decision.

WHY ISOLATE RELEVANT COSTS?

First, only rarely will enough information be available to prepare a detailed income statement for both alternatives. Assume, for example, that you are called on to make a decision relating to a portion of a single business process in a multidepartmental, multiproduct company. Under these circumstances, it would be virtually impossible to prepare an income statement of any type. You would have to rely on your ability to recognize which costs are relevant and which are not in order to assemble the data necessary to make a decision.

Second, mingling irrelevant costs with relevant costs may cause confusion and distract attention from the information that is really critical. Furthermore, the danger always exists that an irrelevant piece of data may be used improperly, resulting in an incorrect decision. The best approach is to ignore irrelevant data and base the decision entirely on relevant data.

Relevant cost analysis, combined with the contribution approach to the income statement, provides a powerful tool for making decisions. We will investigate various uses of this tool in the remaining sections of this chapter.

ADDING AND DROPPING PRODUCT LINES AND OTHER SEGMENTS

Decisions relating to whether product lines or other segments of a company should be dropped and new ones added are among the most difficult that a manager has to make. In such decisions, many qualitative and quantitative factors must be considered. Ultimately, however, any final decision to drop a business segment or to add a new one hinges primarily on the impact the decision will have on net operating income. To assess this impact, costs must be carefully analyzed.

THE MAKE OR BUY DECISION

Providing a product or service to a customer involves many steps. For example, consider all of the steps that are necessary to develop and sell a product such as tax preparation software in retail stores. First the software must be developed, which involves highly skilled software engineers and a great deal of project management effort.

Other companies are content to integrate on a smaller scale by purchasing many of the parts and materials that go into their finished products. A decision to carry out one of the activities in the value chain internally, rather than to buy externally from a supplier, is called a make or buy decision . Quite often these decisions involve whether to buy a particular part or to make it internally. Make or buy decisions also involve decisions concerning whether to outsource development tasks, after-sales service, or other activities.

UTILIZATION OF A CONSTRAINED RESOURCE

Managers routinely face the problem of deciding how constrained resources are going to be used. A department store, for example, has a limited amount of floor space and therefore cannot stock every product that may be available. A manufacturer has a limited number of machine-hours and a limited number of direct labor-hours at its disposal. When a limited resource of some type restricts the company's ability to satisfy demand, the company has a constraint . Because the company cannot fully satisfy demand, managers must decide which products or services should be cut back. In other words, managers must decide which products or services make the best use of the constrained resource. Fixed costs are usually unaffected by such choices, so the course of action that will maximize the company's total contribution margin should ordinarily be selected.

JOINT PRODUCT COSTS AND THE CONTRIBUTION APPROACH

In some industries, a number of end products are produced from a single raw material input. For example, in the petroleum refining industry a large number of products are extracted from crude oil, including gasoline, jet fuel, home heating oil, lubricants, asphalt, and various organic chemicals.

SELL OR PROCESS FURTHER DECISIONS

Joint costs are irrelevant in decisions regarding what to do with a product from the split off point forward. Once the split-off point is reached, the joint costs have already been incurred and nothing can be done to avoid them. Furthermore, even if the product were disposed of in a landfill without any further processing, all of the joint costs must be incurred to obtain the other products that come out of the joint process. None of the joint costs are avoidable by disposing of any one of the products that emerge from the split-off point. Therefore, none of the joint costs are economically attributable to any one of the intermediate or end products. The joint costs are a common cost of all of the intermediate and end products and should not be allocated to them for purposes of making decisions about the individual products.

QUESTIONS

1. How does opportunity cost enter into a make or buy decision?
2. Define the following terms: joint products, joint costs, and split-off point.
3. From a decision-making point of view, should joint costs be allocated among joint products?

REFERENCE

- Garrison, R. H., Noreen, E. W., & Brewer, P. C. (2012). Managerial accounting. (14th ed). https://www.netsuite.com/portal/resource/articles/accounting/job-costing.shtml