

CATEGORIZING COST

Cost Classification

Cost classification is the process of distinguishing costs into subcategories. For this purpose, a classification method is required to categorize and prioritize costs for financial modeling. Many different types of cost classifications can be made such as;

- **Direct and Indirect Costs**
- **Fixed and Variable Costs**
- **Customer Costs**
- **Departmental Costs**
- **Manufacturing Costs**

If you don't understand the difference between the cost categories, you will have difficulties while managing a project's budget or operating a business.

Therefore, it is important to recognize the classification while purchasing material or estimating project expenses.

Assume that you are a project manager of a house construction project and the client makes a change request related to changing the perimeter walls from reinforced concrete to masonry. The first thing you should do is to make a unit price analysis and classify the costs according to their type. Material, labor, and machinery costs are direct costs and increase as the amount of work increases.

On the other hand, project management and operational costs are indirect costs that don't directly relate to the amount of work but increase as the duration of the project increases.

Basically, costs can be divided into two major categories according to the element/nature. For better understanding, let's analyze each concept.

Direct Cost

A direct cost is a price that can be directly attributed to the production of products or services. Some costs, such as direct materials, direct labor, equipment are examples of common direct costs.

In some cases, it is possible to classify an indirect cost as a direct cost. For instance, the salary of the manager who controls multiple concrete batch plants would be considered as an indirect cost for each batch plant. However, that manager's salary would be a direct cost for the department which comprises all of those concrete batch plants.

Direct costs are often variable costs. If the manufactured units increase, direct costs increase. Because creating more units requires more materials and resources.

Indirect Cost

Indirect costs are those which affect the whole company such as depreciation, accounting services, general supplies, board salaries, and overhead costs. They are not spent just on only one product. Overhead costs, ongoing costs, project management costs, operational costs are indirect costs.

Indirect costs are often fixed costs. But also they can be variable.

For instance, the rental cost of your head office is a fixed cost. The quantity of manufactured units doesn't affect your rental price. Another example of a variable cost is your heating and cooling expenses that can change on a monthly basis.

For cost controlling purposes, many companies try to limit their indirect costs as a proportion of direct costs.

Examples of Direct Costs and Indirect Costs

Direct Cost Examples

The following are a few examples of direct costs

- Laborer's wages
- Wood, Glass, Cement, Concrete, Rebar, etc.
- Handles, locks, hinges
- Direct materials
- Consumable supplies
- Freight in and out
- Sales commissions
- Royalty Payment
- Patent Holder
- Consultants
- Tools

Indirect Cost Examples

The following are a few examples of indirect costs.

- Advertisement costs
- Project management costs
- Operational Costs
- Insurance
- Depreciation

- Manager's salary
- Indirect costs related to transport
- Administration cost
- Indirect employee's salaries
- Security cost
- Office cost
- Selling & distribution cost
- Factory overheads

What are the Primary Differences Between Direct and Indirect Costs?

Below are some differences between direct costs and indirect costs.

- It is easy to determine direct costs considering the product or service. On the other hand, it is not easy to identify indirect costs. Detailed analysis is required to identify indirect costs.
- Direct costs are attributable to a specific product, department, goods, or service. On the other hand, indirect costs are attributable to multiple products or services.
- Direct costs are variable costs that change based on the quantity of a product or service. However indirect costs are fixed costs.

Difficulties in Cost Classification

There are some costs that can not be classified easily either direct or indirect. Some indirect costs such as hiring a consultant or traveling expenses are sometimes categorized as direct costs depending on the circumstances. In that case, organizations often classify them according to their nature and usage.

Overhead costs are indirect costs that are related to direct costs.

The costs of a constructed facility to the owner include both the initial capital cost and the subsequent operation and maintenance costs. Each of these major cost categories consists of a number of cost components.

The capital cost for a construction project includes the expenses related to the initial establishment of the facility:

- Land acquisition, including assembly, holding and improvement
- Planning and feasibility studies
- Architectural and engineering design
- Construction, including materials, equipment and labor
- Field supervision of construction
- Construction financing

- Insurance and taxes during construction
- Owner's general office overhead
- Equipment and furnishings not included in construction
- Inspection and testing

The operation and maintenance cost in subsequent years over the project life cycle includes the following expenses:

- Land rent, if applicable
- Operating staff
- Labor and material for maintenance and repairs
- Periodic renovations
- Insurance and taxes
- Financing costs
- Utilities
- Owner's other expenses

The magnitude of each of these cost components depends on the nature, size and location of the project as well as the management organization, among many considerations. The owner is interested in achieving the lowest possible overall project cost that is consistent with its investment objectives.

It is important for design professionals and construction managers to realize that while the construction cost may be the single largest component of the capital cost, other cost components are not insignificant. For example, land acquisition costs are a major expenditure for building construction in high-density urban areas, and construction financing costs can reach the same order of magnitude as the construction cost in large projects such as the construction of nuclear power plants.

From the owner's perspective, it is equally important to estimate the corresponding operation and maintenance cost of each alternative for a proposed facility in order to analyze the life cycle costs. The large expenditures needed for facility maintenance, especially for publicly owned infrastructure, are reminders of the neglect in the past to consider fully the implications of operation and maintenance cost in the design stage.

In most construction budgets, there is an allowance for contingencies or unexpected costs occurring during construction. This contingency amount may be included within each cost item or be included in a single category of construction contingency. The amount of contingency is based on historical experience and the expected difficulty of a particular construction project. For example, one construction firm makes estimates of the expected cost in five different areas:

- Design development changes,
- Schedule adjustments,

- General administration changes (such as wage rates),
- Differing site conditions for those expected, and
- Third party requirements imposed during construction, such as new permits.