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# Introduction to Cost Concepts for Decision Making

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## 1. Introduction

Question "Why we are Here?" have the answer, because of your decision making to choose to be a graduate in business economics subject. Decision making is an Art of using a mind in such a manner that one can achieve his goal either for short term or long term. It is a process of making a choice of right alternative in favour of achieving the objectives. In Corporate culture, Companies also want to achieve its' objectives and for the better result in its' planning and control. Companies must have to take the decisions in a so thoughtful manner that can minimize its risk and maximize its return.

Corporate return means Profit in most of cases. Profit depends on two element (1) Cost Price and (2) Selling Price. Cost price simply means, the price incurred for making the product, carrying the product and promoting the product. It means all the price until the product is sold but without profit. If it is cost and with profit, it becomes selling price.

**Now let us understand the Concept of Cost:**

The concept of cost is introduced since the barter system. If someone would want something, he or she has to give something. Whatever was given up in exchange is simply the cost of whatever they have received. But after the barter system, the term 'Cost' is expressed in monetary terms.

**According to the Cambridge Dictionary**,

"*Cost is simply known as amount of money needed to buy, do, or make something.*"

**According to ICWA, India**

*Cost as "measurement, in monetary terms, of the amount of resources used for the purpose of production of goods or rendering services".*

**The term Cost and Expense is often confused and hence before moving on to the next topic let us distinguish Cost and Expense**

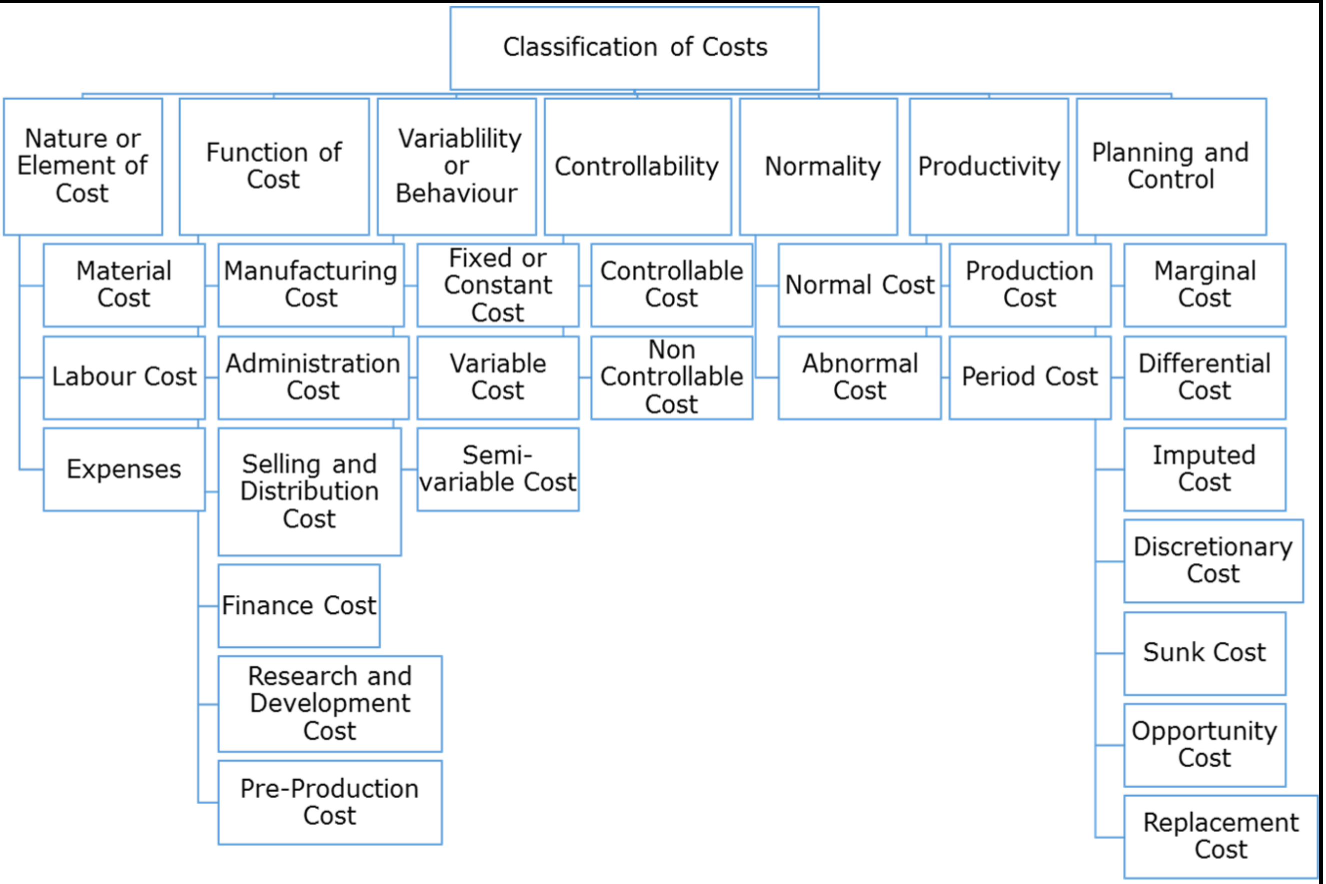
An **expense** is a **cost** that has expired or was necessary in order to earn revenues. In business, cost is usually a monetary valuation of (i) effort, (ii) material, (iii) resources, (iv) time and utilities consumed, (v) risk taken and (vi) opportunity forgone in production and delivery of a good or service.

All expenses are costs, but all costs may not be the expense such as those incurred in acquisition of asset are cost but not an expense because such payments give benefit over long term and do not expired within a period of one year.

If a company purchases a vehicle to be used in its business, its cost will initially be recorded as the asset in the company's balance sheet. However, the use of the same vehicle for one year will become Depreciation Expense as it is used in the company's main, revenue-generating activities.

## 2. Types of Cost

**Now let us move on to the types of Cost:**




## 3. Relevant Cost and Irrelevant Cost

Today we are going to discuss the costs associated with planning and controlling as these are the costs which are most relevant for the decision making.

**In this context, let us understand Relevant Cost and Irrelevant Cost:**

*"There are certain costs which must be taken into consideration while selecting an alternative amongst all possible alternatives for a solution of a particular problem are **relevant costs** for that decision."*

*"There are certain costs which are not necessary to be taken into consideration while selecting an alternative amongst all possible alternatives for a solution of a particular problem are known as **irrelevant costs** for that decision"*

**For Example,**

A company manufactures a typical product which requires a particular type of raw material in its manufacturing. Now supposing that the company has an option of manufacturing the same raw material in its own plant, the cost of manufacturing that raw material is a relevant cost. But if the same is purchased from outside, then the cost of transportation, travel insurance premium etc. are also relevant costs.

On the other hand the cost of rent, insurance premium of the factory etc. are all irrelevant costs as they are already incurred and not directly associated with the decision of making or buying of raw material. They are past cost and also uncontrollable. Such costs are irrelevant because these costs will remain unchanged no matter which alternative is selected. That is the reason why they are also called sunk costs.

**Now, let us focus on today's very important topic - "Relevance of cost in Decision Making"**

We are all aware that Planning, Controlling and Decision Making are essential ingredients for every management.

In management team, top level managers have the authority and responsibility of taking the decision for achieving the objectives of the business. So it is obvious that the costs which are associated with the planning and controlling are most relevant for the decision making process. So let us discuss the each cost one by one which can affect the planning and controlling of a business.

The Term 'Relevance' itself is very specific for particular thing. Relevance refers to appropriateness, proper, significance, related things for particular decision. The complexity for relevance and irrelevance is simple to understand. If one can choose any one alternative from many alternative for particular decision and if the cost for all alternatives are same then it is irrelevance but if the cost for different alternatives are different then it is relevant. That is why differential cost is included in the relevant cost for decision making. As all the Variable costs are varied or differ, all the variable costs are relevant while fixed costs are not varied or differ it cannot be consider as relevant. But this is not possible in two cases, first in long run all the fixed cost become variable one, second, fixed cost is fixed for one alternative only it may differ from alternatives.

**A Question we arise that what is Relevant costs and Irrelevant Cost:**

*"Cost which can be changed according to the changes in the decision making is known as relevant cost."*

*"Cost cannot be changed according to the changes in the decision making is known as irrelevant cost"*

If the business needs some raw material to manufacture a product, weather raw material purchased from outside or manufacturing into its own factory. The cost of rent or insurance premium of the factory is irrelevant for this particular decision as it is already paid and not going to change now whatever alternative is chosen. It is past cost or sunk cost that is already incurred but the cost of manufacturing a raw material or the cost of transportation, travel insurance premium of material purchased is the relevant cost of the decision.

**4. What Relevance of Cost in Decision Making?**

**Now let see what Relevance of Cost in Decision Making?**

From General point of view, presently whatever stage the persons are performing has significant impact by his or her own decision. While From Management point of view, Top Level Managers have the authority and responsibility of taking the decision for reaching the business performance in whatever stage they are. Management terms itself define with two most important functions of the management i.e. Planning and Control. So it is obvious that the costs which are relevant for decision making is highly connected with the costs which are associated to done the effective planning and control. This table shows that there are

1. Marginal Cost
2. Differential Cost
3. Imputed Cost
4. Discretionary Cost
5. Sunk Cost
6. Opportunity Cost
7. Replacement Cost
8. Out-of-Pocket Cost

**Let us discuss these one by one**

**Begin with Marginal Cost**

Marginal cost means the difference in total current cost with the manufacturing of one more product.

"*Marginal cost is the differential variable cost of one unit increased or decreased in the current total output." It is also known as "one extra additional unit cost."*

Marginal cost generally taken into variable cost because generally variables cost is changed with an increase or decrease the level of output. Fixed cost is considered as period cost and it assumed that it is already covered in total cost of current level of output. It is helpful in making price change when unexpected order is received, in make or buy decision etc.

**Differential Cost**

Difference itself said that it should be either incremental or decremental. Differential cost is the increase or decrease in total cost under the different alternative. Alternative may be the change of technology, change in the level of activity, change in method of production, change in the sales volume, make or buy decision, take or refuse decision, buy or rent decision or any other change that affect one particular choice of decision. It is found by subtracting the cost of one particular choice of alternative from the cost of second choice of alternative.

Incremental Factory overhead cost, incremental managerial cost, incremental capital costs, incremental purchasing raw material cost, incremental raw material or inventory carrying cost, incremental direct labour cost. These can be the cost considered for the 'make' decision out of 'make or buy' decision.

**Imputed Cost**

Imputed Means assigned with, associated with, or you can say related with. Imputed costs are relevant to the decision making but are not incurred in particular action taking. It is not affected to the cash outflow of the business but it is an outflow which is not paid or not incurred as imputed costs are imaginary costs which are intentionally calculated outside the business but it is necessary to take into account because it is relevant cost. Interest on capital that is going to invest in the business is forgone is a common type of imputed cost. In the same way Lease value of machinery that owned by the business which is forgone is also an imputed cost. So that imputed cost is an opportunity cost as well.

**Discretionary Cost**

Dictionary meaning of Discretionary is 'flexible' or 'optional'. It means that the cost which can be consider as an option which is in the hands of management weather they are ready to select this option or not. It is relevant to the decision making as one can reduce the total cost by selecting the other option or avoiding the present selection.

"*Discretionary Cost is the cost which may be ignored by the management while taking the decision. It is also known as avoidable cost because it can be avoided."*

In advertising cost management may think to take new upcoming role model instead of already well-known role models who are charging a less.

**Sunk Cost**

Sunk cost is the dead cost which is historical or past cost incurred in the past. It is the cost which was consider or relevant at a time of particular decision was taken in the past. So it can be said that in the present, Sunk cost is not relevant while taking the decision today. But it is in the list of relevant cost in decision making only because of the reason that whatever the decision is taking today should be right only when after analyzing the past taken decision and experience about that taken decision.

Let us take an example, In the year 2000, factory was purchased in Rs. 19 thousand but today the value of factory is around 9 million. So the cost of Rs. 19 thousand is not considered while selling the factory and therefore it becomes the Sunk Cost.

**Opportunity Cost**

When decision makers of the business are taking any decision by selecting one alternative from different available alternatives, the cost associated with the selected alternative is the opportunity cost of sacrificing by other not selected alternatives. Of course, different alternatives are not equally profitable and most businesses select the most profitable alternative. it does not affect cash outlay of the business and not entered in the books of account like imputed cost but it is relevant to calculate the selecting the right alternative. Though opportunity cost is considered as a loss, business can't claim it from the taxes as a deduction.

Let us take an example, If person 'X' is ready to do the job on the basis of salary for 8 hours per day, he may lose that 8 hours spending into business or somewhere else. As and when he select the job, he is ready to forgone the income from business, is consider as an opportunity cost.

**Replacement Cost**

Replacement cost involves the case of changing, exchanging, finding out substitutes of Men, Material and Machinery. Most of the replacement cost occurs because of technological changes and the changes in profit in terms of reduction. Theoretically it can be said that when above 3'M' is starting affecting to $4^{th}$ 'M' that is Money.

"*Replacement cost is the cost of replacing any one 'M' from the above 3 'M' to either of that particular 'M' or another 'M', as Material can be substituted by only Material but Men can be replaced by Machinery or vice versa.*"

Let clarify it with an example. Company A, Plans to replace its 50 labourer to whom Rs. 5 per unit paid by the company, with an ultra-modern machinery costing Rs. 5 million, which has manufacturing cost of Rs. 3 per unit. In this situation the cost of

Rs. 5 million of the machinery becomes the replacement cost of 50 labourer cost.

Most of Automobile companies are now a days is in the path of substituting their materials to reduce their total cost like most of iron plated materials is substituted with fiber materials, most of hard iron is substituted with raw iron, most of copper or steel materials like screws, handles, silencers, guards substituted by raw iron.

**Out-of-Pocket Cost**

Out-of-Pocket cost is generally rolled as a supportive in making a decision. **It is the cost which helps to cover routine cash expenses if there is any problem regarding any decision making**. As it is associated with cash expenses, it can't be categorized in fixed or variable cost. The cost which is associated with cash out flow is generally known as explicit cost too.

Out-of-Pocket is relevant for decision making because it is just not a cost but that is calculated for cash outflow of the business, it is the cost which also think give return that cash outflow associated with the particular taken decision. It is exactly opposite cost than Imputed or Implicit Cost as Imputed costs do not consider the Cash outflow.

## 5. Summary

Let us summarized at the end,

Today we have discussed the concept of cost associated with planning and control of business firm, its relevance in decision making and various types of cost.