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Study on concept of cost of production: It's implication in management decision

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Abstract

Purpose of this study is to understand the concept of Cost of production and how its graph moves during the economic life of product/business. Understand the concept of various costs which helps management in making their decisions.
Cost of production is the cost incurred by business for manufacturing goods or for providing services. It is majorly categorised in two major categories variable cost and fixed cost. Cost of production can be understood, analysed and used for decision making in following terms:
1. Fixed Cost
2. Variable Cost
3. Total Cost
4. Average Variable Cost
5. Average Fixed Cost
6. Average Total Cost
7. Marginal cost

Management use cost of production in making following and various other decision:
1. Product selection for production
2. Product Pricing
3. To review past decisions
4. To correct future decisions
5. Costing Cutting

Keywords: Cost of production, marginal cost, management decision, forecasting, budgeting, average variable cost, variable cost, average fixed cost, fixed cost

Introduction

Objectives
1. Understand basic concept of Cost of Production
2. Understand concept of various other terms attached with Cost of Production
3. Understand how real life problem can be solved with concept of cost of production

Production Cost
It is the cost incurred by business for manufacturing goods or for providing services.

Cost includes: Labour Cost, Raw Material, Machinery, Overheads, Taxes levied by Government, Building Rent, Interest on Capital, Advertisement Expenses, Insurance Charges and various other.

Cost can be divided into two broad categories
Direct Cost / Variable Cost: Direct cost is incurred directly for the production of goods and services. It is also known as Variable cost; which means it increases with increase in production and decrease with decrease in production. It keeps on changing with different scale of production.
1. Labour Cost
2. Material Cost

Indirect Cost / Fixed Cost: Indirect cost is not depended on production of goods and services. It is also known as Fixed cost; which every business needs to incur either business is operational or not.

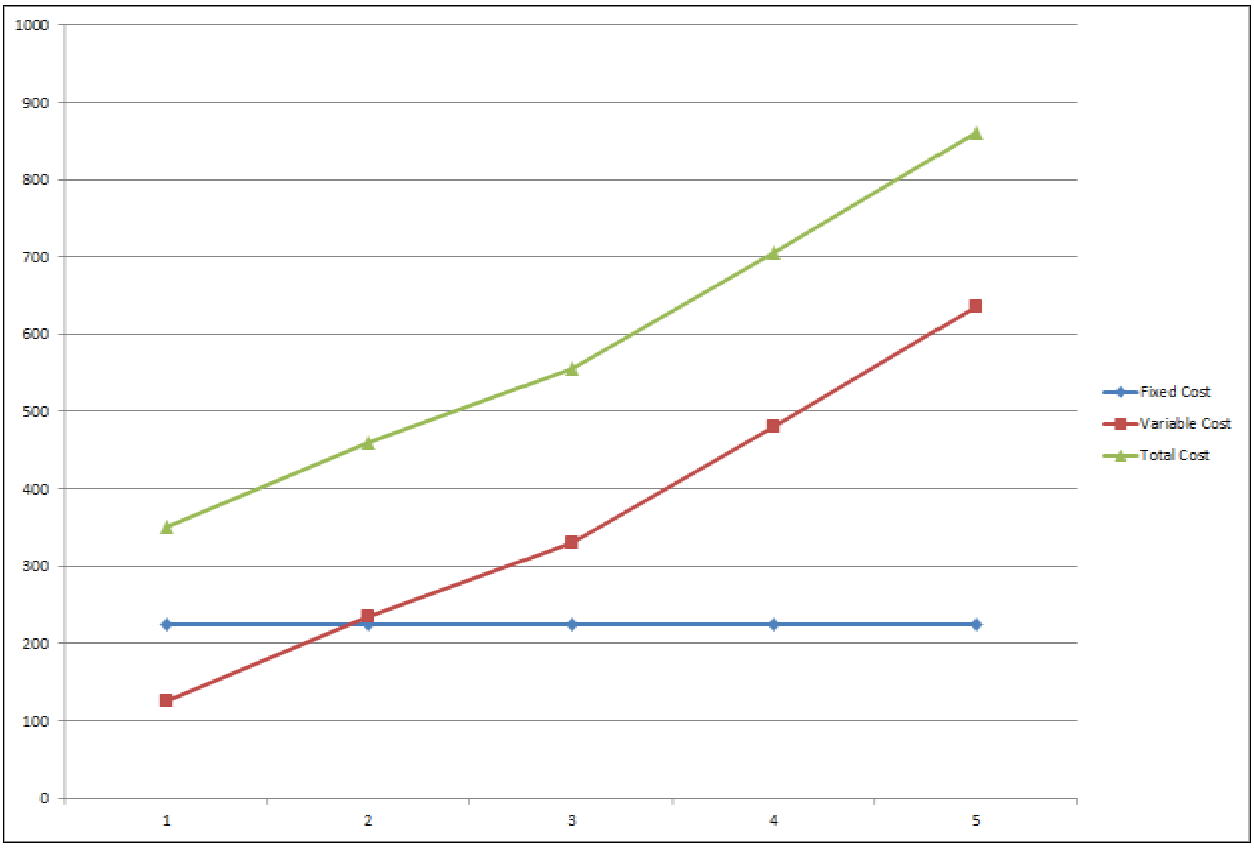
1. Rent
2. Salary
3. Electricity
4. Administrative expenses

Formula Total Cost = Fixed Cost + Variable Cost per unit * No of Units

Example

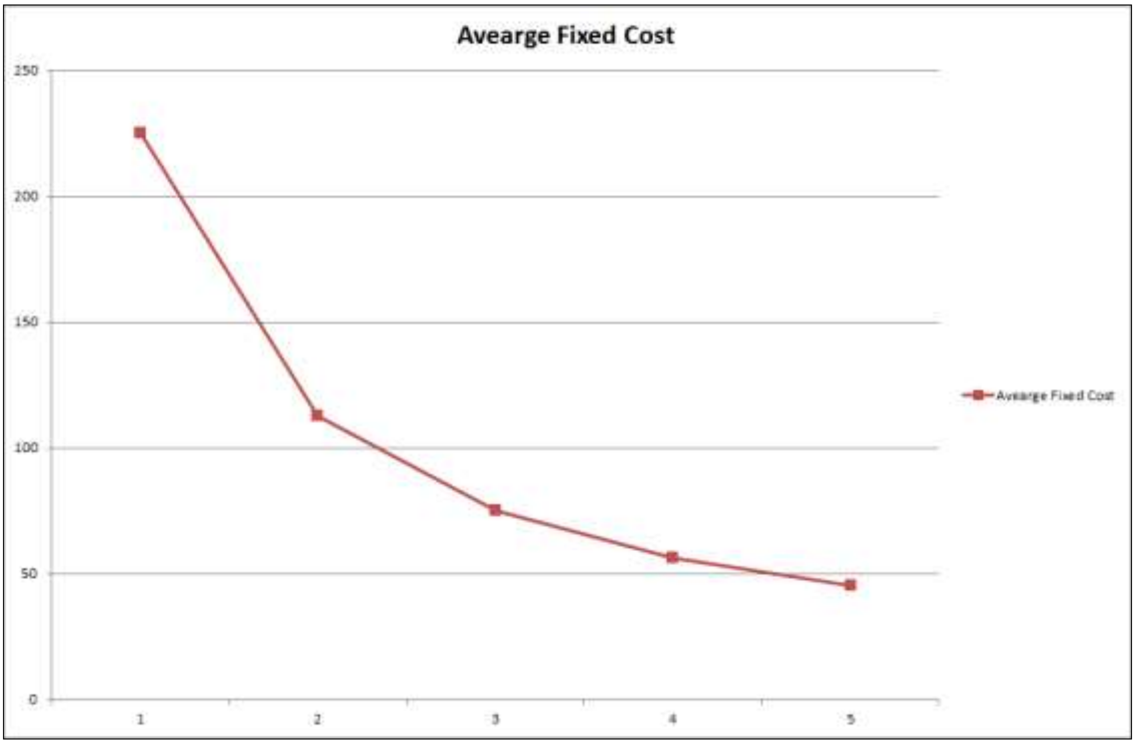
Number of Units	Fixed Cost	Variable Cost	Total Cost
1^r	225	125	350
2^r	225	234	459
3^r	225	330	555
4^r	225	480	705
5^r	225	635	860

- Fixed cost remains fixed at all level of production and variable cost keeps on changing as production changes.
- Variable Cost will change with change in production level



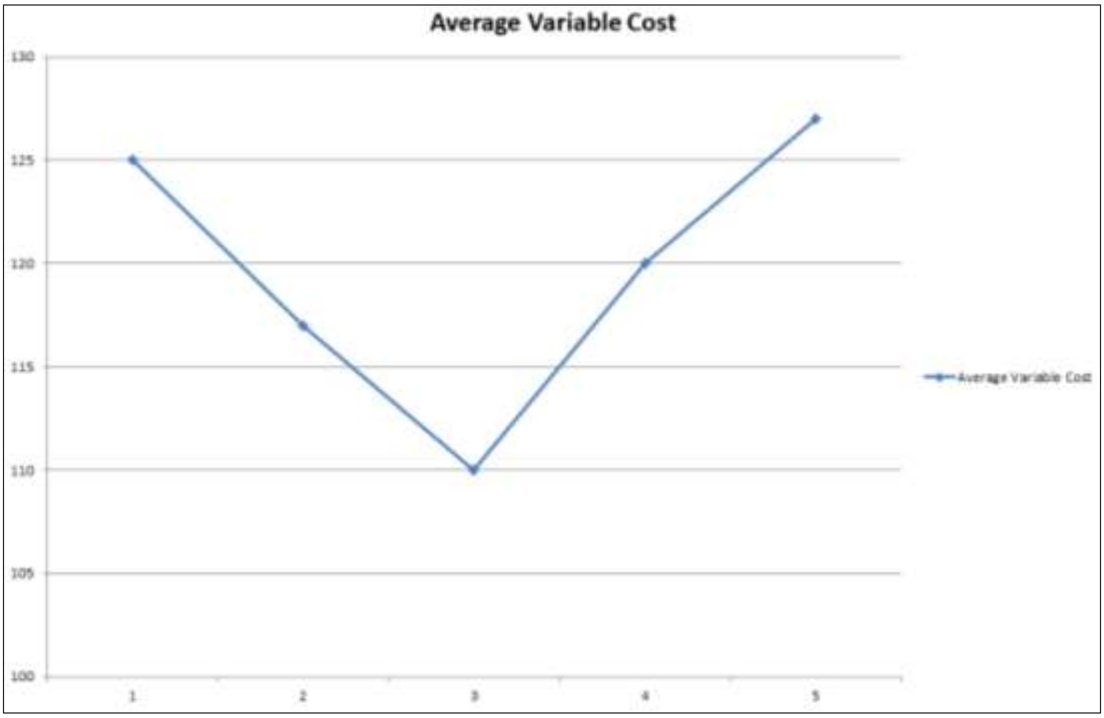
Average Fixed Cost: It is calculated by dividing total fixed cost by total output. Once business increases its production level, average fixed cost decrease. Let's understand this with in continuation of previous example.

Number of Units	Fixed Cost	Average Fixed Cost
1	225	225
2	225	112.5
3	225	75
4	225	56.25
5	225	45



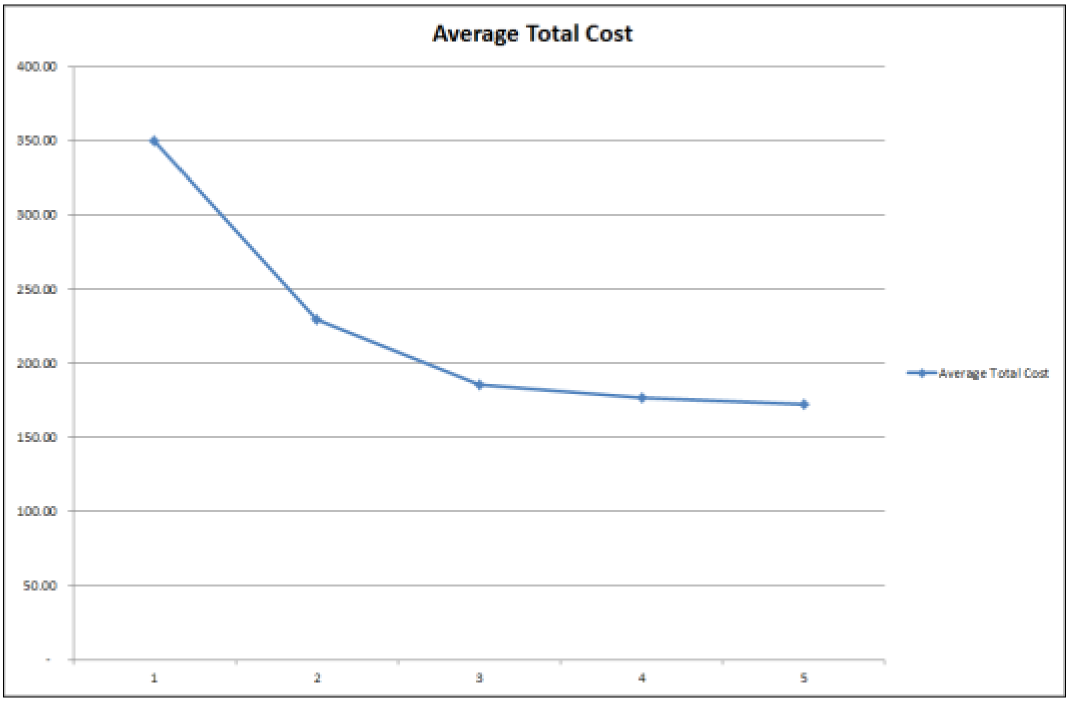
Average Variable Cost: It is calculated by dividing total variable cost by total output. Its graph is U shape. Increase in production leads to decrease in average cost. However, constant decrease followed by diminishing returns lead to increase in cost again.

Number of Units	Variable Cost	Average Fixed Cost
1	125	125
2	234	117
3	330	110
4	480	120
5	635	127



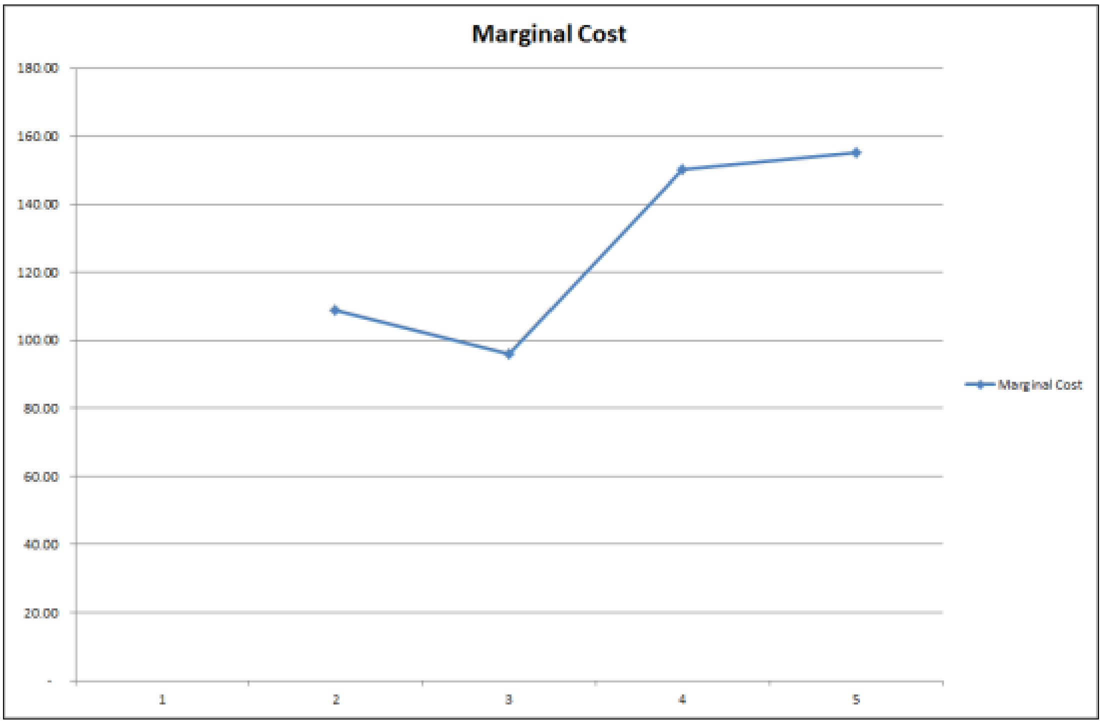
Average Total Cost: It is calculated by dividing total cost by total output. Its movement is combined effect of average fixed cost and average variable cost.

Number of Units	Total Cost	Average Total Cost
1	350	350.00
2	459	229.50
3	555	185.00
4	705	176.25
5	860	172.00



Marginal Cost: It is a cost of producing one extra unit. It is calculated by subtracting total cost of production of previous production from total cost of current production level. Its movement fall rarely in beginning then it increase.

Number of Units	Total Cost	Marginal Cost
1	350	
2	459	109
3	555	96
4	705	150
5	860	155



Average total cost and marginal cost are linked to each other. Both are calculated from the same cost data. The general rules governing the relationship are:

1. Marginal cost graph will always cut average total cost graph from below.
2. When average total cost will be decreasing, then marginal cost will be below average total cost
3. When average total cost will be increasing, then marginal cost will be above average total cost
4. Any business is most profitable at the lowest average total cost, where
   Average total cost = Marginal cost

Cost of production helps in making managerial decision

1. **Product Pricing:** Costing help management to decide price of the product. It should be such business should not go in loss in long term. It helps management in every stage of business; whether business is in initial stage, growing stage or at developed stage. At initial stage management generally keep price of product little low to attract customers to purchase their product but yet they can't afford to go in losses and gradually they increase price of their product accordingly.
2. **Chose Product:** If business is still in planning phase, then costing help management to choose between more than products to start with their business. As it helps management to find out which product is suitable as per their budget to start with their business.
3. **Cost Cutting:** It helps management to reduce cost of current process. They always try to reduce cost whether it is fixed cost or variable cost or some cost are redundant if it was required earlier but now it is not but it is still incurred. So they always try to reduce cost in all certain way.
4. **Organisational objectives:** It helps management to achieve their objectives in terms of maintaining budget, forecasting revenue and profit and reducing cost. Costing or cost of production helps management to keep things intact.
5. **Future Decisions:** it helps management to take future decisions and decide where they want business to lead. They forecast their COS & SGA cost, short term & long term cost, variable & fixed cost, direct & indirect cost.

Conclusion and recommendation

As per my analysis, It is one of the most essential parts for making decisions and economics has helped business to laid down its concept beautifully. It helps us to understand how various cost moved during different phases on production and business cycle. Marginal cost help management to review their decision at the point of time when it start increasing instead of reducing for betterment of business. Average Fixed cost and variable cost also help to make decisions from where to procure material, how much to invest in working capital, when to increase production and when to review process again.

It is very essential to identify the cost of production for any given product or services; to lay down the budget for the production of goods, to forecast revenue and profit for the company. It helps in meeting objectives of business.

So one should use it while start making production of any goods and services; either its new product, to revive old product or make improvement in existing product.

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