# Comparative Analysis of Marginal Costing Method and Absorption Costing Method

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**Abstract:** This paper focuses on the comparative analysis of the two cost accounting methods: the absorption costing method and the marginal costing method. Firstly, it analyses their concepts, cost components and methods of calculating income, and then describes their respective advantages and disadvantages. Finally, it puts forward that they should be combined.

### **1. Introduction**

Since the formal formation of modern management accounting system in the 1950s, people have paid more and more attention to forecasting analysis, decision-making analysis and budget control. In order to provide more useful management information to enterprise accounting departments and strengthen control over prior planning and daily control of economic activities, marginal costing method has developed rapidly. At present, the marginal costing method has been widely used in the internal management of some developed countries, such as the United States, Japan, Canada, Australia, and has become a place in management accounting, has become a unique cost analysis method. In our country, enterprises mainly use the absorption costing method, seldom use the marginal costing method. Therefore, it is necessary for us to know the basic knowledge of marginal costing method.

## 2. Contrastive Analysis of Marginal Costing Method and Absorption Costing Method

## 2.1 Different Prerequisites for Application.

The marginal costing method calculates the cost of production based on the analysis of cost behavior. Cost behavior analysis is to study the quantitative relationship between total cost and business volume on the basis of cost classification. The premise of the application of absorptive cost method is that the cost is classified according to the economic use. Costs that are considered to be directly borne by products are included in production costs, and those that arise from sales or management are included in period costs.

## 2.2 The Composition of Product Cost and Period Cost

Under the marginal costing method, the total cost can be divided into two parts: variable cost and fixed cost.

Marginal costing method					
Variable	Variable Production Cost	Direct materials	Product		
Cost		Direct labour	cost		
		Manufacturing cost			
	Variable Non-Production	Variable Sales and Management	Period		
	Cost	Cost	expense		
Fixed cost	Fixed Production Cost	Fixed Manufacturing cost			
	Fixed Non-Production Cost	Fixed Sales and Management Cost			

Table 1 Cost Division	on of Marginal	costing method
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Absorption costing method				
	Direct materials	Product cost		
Production Cost	Direct labour			
	Manufacturing cost			
Non-Production Cost	Sales and Management Cost	Period expense		

#### Table 2 Cost Division of Absorption costing method

#### 2.3 The different Level of Cost of Goods Sold and Cost of Goods in Stock

Because there are differences in product cost components between the two, the cost of sales and inventory are also different. Under the marginal costing method, the product cost is the unit production cost, including the variable production cost, that is, the direct material, the direct labor and the variable manufacturing cost, not the fixed manufacturing cost, but is included in the period cost accounting. Therefore, the product cost is fixed, and the sale cost and the inventory cost can be calculated directly, that is:

$$Cost of Sale = Cost of Unit Product * Number of Sales$$
(1)

Closing inventory cost = unit product cost \* inventory number (2)

Under the absorption costing method, because the product cost includes the fixed manufacturing cost, the product cost is affected by the quantity of inventory. Therefore, when calculating the sales cost, the backward extrusion method should be used to calculate the sales cost.

Cost of Sale = Cost of Generation at the Beginning of Period + Cost of Production at the Present Period - Cost of Inventory at the End of Period (3)

Closing inventory cost = unit product cost \* inventory number (4)

When the initial inventory is zero, the following formula can also be used directly to calculate the cost of sales:

$$Cost of Sale = Cost of Unit Product * Number of Sales$$
(5)

### 2.4 Different Procedures for Determining Profit and Loss

The difference between marginal costing method and absorption costing method lies not only in product cost, but also in the measurement procedure of business profit and loss. The marginal costing method focuses on providing accounting information internally. It requires enterprises to provide marginal contribution and the influence of sales volume on marginal contribution under certain conditions. Therefore, the contributory profit and loss determination procedure is usually applied under the marginal costing method.

Contribution profit and loss determination procedure refers to the process of calculating profit and loss, which first deducts the variable cost realized in the current period with sales revenue, and then obtains the marginal contribution, then deducts the fixed cost in the current period with marginal contribution, and finally determines the current operating profit. absorption costing method focuses on providing external accounting information that reflects certain business results, mainly looking at the final revenue results.

Therefore, the traditional profit and loss determination procedure is adopted in the application of full cost accounting. Traditional profit and loss determination procedure refers to the process of calculating profit and loss, which first deducts the operating cost realized in the current period with sales income, and then deducts the operating expenses with the operating gross profit, and finally determines the current operating profit and loss. Because of the difference between the two programs, the following differences can be deduced: Calculation of Business Profits and Losses under marginal costing method

Marginal contribution= Unit Price \* Sales Number-(Variable Production Cost + Variable

Non-Production Cost) \* Sales Number

=Unit Price \* Number of Sales - [Current Cost of Sales + (Variable Sales Cost + Variable Management Cost + Variable Financial Cost)] (7)

Operating Profit = Contribution Gross Benefit - Fixed Cost

= Contribution Gross Benefit- (Fixed Manufacturing Cost + Fixed Sales Cost + Fixed Management Cost + Fixed Financial Cost) (8)

The calculation of business profit and loss under the absorption costing method

Gross operating profit = operating income - operating cost

=Price \* Number of Sales- (Initial Inventory Cost + Production Cost Occurred in the Current Period - End Inventory Cost) (9)

#### 3. The Combination of Marginal Costing Method and Absorption Costing Method

The operating profit calculated by the marginal costing method and the absorption costing method can be transformed into each other. In order to make the cost accounting of enterprises meet the needs of internal management and external reporting, we can combine the advantages of the two methods in accounting and apply the two methods together to implement the combined system. So that the cost accounting method can meet all aspects of information users.

Marginal costing method and absorption costing method are used simultaneously as two costing methods, i.e. "Two-track System". In addition to the accounting data of the absorption costing method, another set of accounting system of the marginal costing method is set up to provide two sets of cost accounting data in order to meet different needs. The advantage of this method is that it is technically simple. However, its shortcomings are also obvious. This way is heavy workload, and repeated accounting, resulting in waste of manpower, material resources, financial resources and time, which violates the principle of cost-effectiveness.

Daily accounting is established on the basis of marginal costing method to meet the internal management needs of enterprises. At the end of the period, relevant items that need to be reflected by absorption costing method should be adjusted to meet the needs of external reporting. In order to get the information of internal cost control and performance evaluation at any time, this method usually calculates according to the marginal costing method. When the financial statements need to be prepared at the end of the period, the relevant accounts should be consolidated and adjusted. The greatest advantage of this combination method is that it can obtain a lot of financial information without bringing too much extra workload to the accountants, taking into account the needs of internal management and external reporting, so it is feasible.

#### 4. Conclusion

After comparing and analyzing the two methods of cost accounting, we can know the difference between them. We can know that they have different concepts, different cost components, different methods of calculating income and different uses of information provided. Both of them have their own advantages and disadvantages, and play different roles in enterprises, and their roles can not be replaced by each other. Therefore, in order to meet the different needs of enterprises, enterprises should try to combine the two methods.

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