Farabi University

- Marginal Costing in the cost management system
  - Management Department
  - “Cost Management” Course
  - Dr., professor Adambekova A.A.

Let's remember! Full cost calculation, standard costing, full cost absorption method

- Absorption-costing involves the distribution of fixed costs by type of product. The cost of finished goods takes into account all costs associated with the production of products, including general production overhead costs.

- **The basic financial result is gross profit as the difference between revenue and cost of goods sold.**

Direct costing = margin costing

- Direct costing (marginal cost accounting method, Direct costs - eng) is a cost accounting method introduced by the American economist D. Harris in 1936, which consists in calculating the cost of products based only on direct (variable) costs.
- Marginal costing is the distribution of only variable direct costs of an enterprise to a cost object.

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Direct costing = margin costing

- “Direct costing” is a calculation method in which the essence of the “direct costing” system is that the cost is taken into account and planned only in terms of variable costs, i.e. only variable costs are distributed among cost carriers.
- Marginal costs are the costs that are incurred in producing one additional unit of a product. However, estimating fixed production costs such as rent, heating, management, etc. has always been a challenge.

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Direct costing = margin costing

- The marginal method of cost accounting is based on the fact that the cost of production is formed only as consisting of variable costs (directly dependent on the volume of products produced). Fixed costs (not directly related to production) do not participate in the formation of cost and at the end of the reporting period (month) are attributed directly to the financial result.
- This method gets its name from the concept of “marginal income”, which is calculated as the difference between revenue from sales of manufactured products and the variable cost of these products

Direct costing = margin costing

- Marginal costing is suitable for making short-term pricing decisions. Marginal costing is more suitable for use in making one-time pricing decisions.

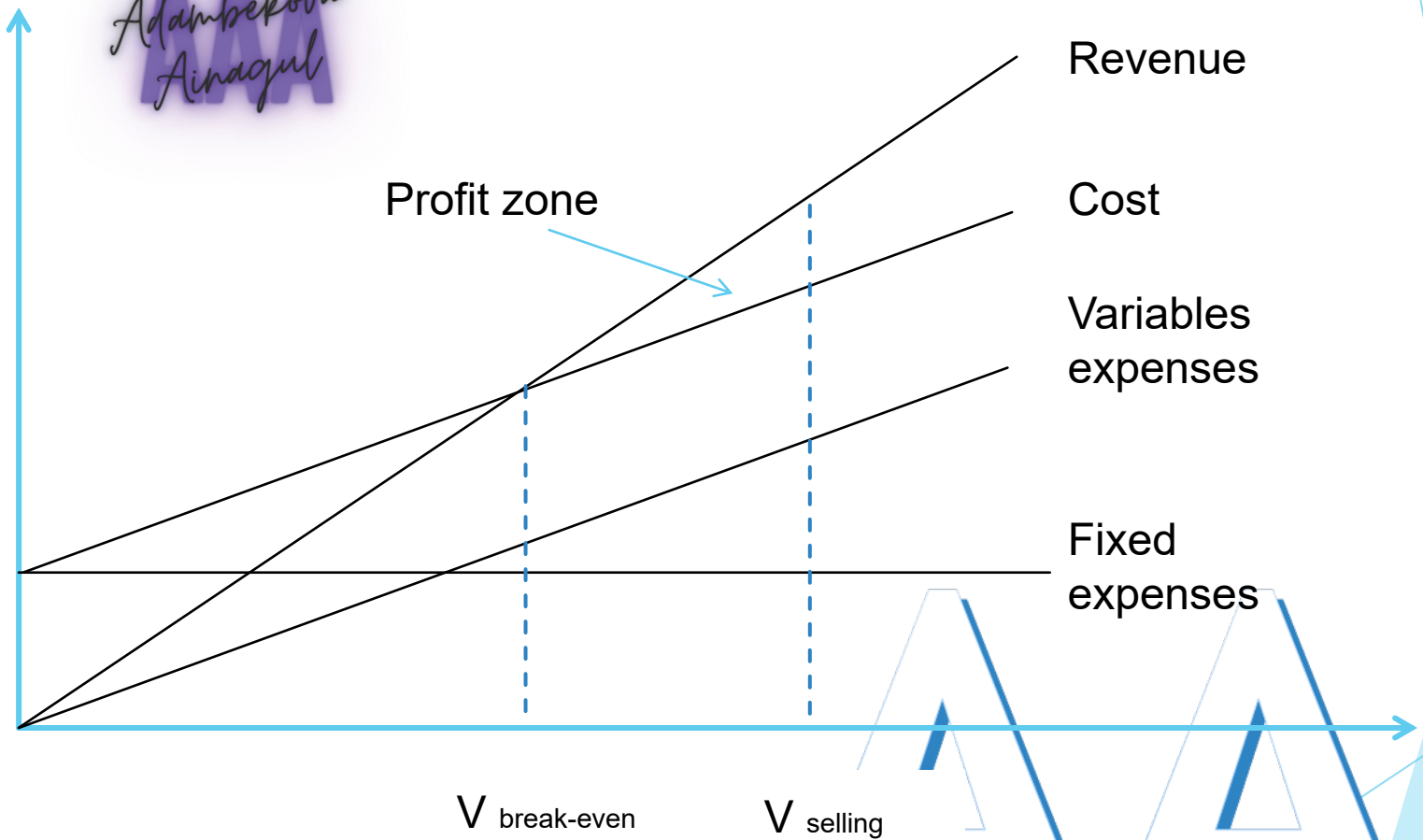
Direct costing = margin costing

- The marginal cost accounting method involves a clear division of costs into variable (directly affecting the volume of products produced) and constant (not directly related to production, but ensuring the operation of the organization as a whole).
- The cost of finished products and work in progress is formed at the level of including general production costs (i.e., it is incomplete). Fixed expenses directly from their accounting accounts are applied directly to the financial result.

Comparison of calculation methods

Direct costing	Absorption-costing
Only variable costs are taken into account in the cost of finished products	Fixed production costs are distributed by type of product and taken into account in the cost price
Costs are classified into variable, fixed	Costs are classified into direct, indirect
Product inventories are valued at only variable costs	Product inventories are valued at full production costs.
Used to manage production volumes and pricing	Used to prepare financial statements of an enterprise

Direct costing. Break-even chart



Direct costing. Formulas for calculation.

Indicator name	Calculation method
Profit	Revenue – Cost; Revenue – Variable costs – Fixed costs Price*V_{real} – Variable costs $_{proportion}$ * V_{real} – Fixed costs
Break-even volume	Fixed costs/ (Price – Variable costs $_{proportion}$)
Financial strength margin	$V_{real} – V_{break\text{-}even}$

Direct costing. Formulas for calculation.

Break-even point (in physical terms)	Fixed costs / (Unit price of a product or service − Variable costs per unit of product/service).
Profit from margin deviation on sales volume	(actual volume - budget volume) × budget contribution margin per unit
Marginal profit	Revenue - Variable costs
Break-even point (in money)	Fixed costs / (Revenue − Variable costs) × Revenue

Margin accounting
CVP analysis

CVP - analysis – This is an analysis of the cost-volume-profit ratio (*C-cost, V-value, P-profit*) is carried out with the aim of finding such values of price, actual sales volume, variable and fixed costs that would ensure the maximum amount of profit from the sale of a given type of product.

CVP analysis is also used to find the contribution of each type of product to the overall profit of the enterprise.

CVP- analysis

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The classical model of CVP analysis can be expressed by the target function of maximizing operating profit.

$$OP = p * Q - v*Q - FC = M - FC \rightarrow max$$

OP – *operating profit for the period,$*

M – *marginal income of this type of product, $.,*

p – *unit selling price, $./un.,*

Q – *sales volume for the period in natural units, un.,*

v – *unit variable costs, $./un.,*

FC – *total fixed costs for the period, $.,*

Case 1

- The company produces a single product with a production volume of 500 units per month.
- The unit cost of the product is as follows:

Selling price	80
Variable costs	
Direct material costs	16
Direct labor costs	24
Variable overhead costs	6

- Planned fixed costs are $180,000 per year
- In July, actual sales were 650 units.
- The company has sufficient stocks of finished products.
- Determine profit generated using the full cost absorption method:

Solution

- Marginal profit = $80 - ($16 + $24 + $6) = $34
- Total marginal profit = 650 units. x $34 = $22,100
- Fixed expenses per month = $180,000 / 12 = $15,000
- Total profit = $22,100 - $15,000 = $7,100

- OAR = $15,000 / 500 units = $30
- Absorption Profit = $7,100 - 150 x $30 = $2,600
- Correct answer: $2,600

Case 2

The company's budgeted sales volume for the month is 10,000 units at a price of $20 per unit and a marginal profit of $0.4 per $1 of revenue. Over the past month, sales volume was $10,500 units and revenue was $204,750.
Determine the deviation of marginal profit by sales volume

Solution

The deviation of marginal profit by sales volume =
(actual volume - budget volume) × budget marginal profit per unit.
From here:
The deviation of marginal profit by sales volume
= (10,500 – 10,000) × 0.4 × $20 = $4,000
Correct answer: 4,000

Case 3

- JH Company is planning a golf trip targeting a group of entrepreneurs.
- Entrepreneurs pay for their own flight to the local airport. JH Company will pay for subsequent transportation, hotel accommodations and use of the golf course (green fee).
- JH Company costs to organize an event for 28 participants

Revenue= $8,000 per participant	224000
Cost of advertising in a magazine	8000
Bus rental (one bus with 35 seats)	2500
Bus Driver Remuneration	800
Hotel permits and meals ($600/participant for each of 7 days)	117600
Green fee – $200 per participant for each of the 7 days	39200
Expected profit	55900

- JH received 46 applications from potential participants.
- If JH Company accepts all these bids, what will be its profit?

Solution

Revenue= $8,000 per participant	**$8 000 * 46 участников = 368,000**
Cost of advertising in a magazine	8000
Bus rental (one bus with 35 seats)	$2 500 * 2 bus = (5,000)
Bus Driver Remuneration	$800 * 2 bus = (1,600)
hotel permits and meals ($600/Green fee – $200 USD per participant for each of the 7 days for each of 7 days)	$600 *46 participants * 7 days = (193,200)
Green fee – $200 USD per participant for each of the 7 days	$200 * 46 participants * 7 days = (64,400)
Expected profit	95800