

**MKT 100 Tip Sheet:
Variable & Fixed Costs, Percent Change,
Market Share, Contribution Margin**

Variable Costs vs Fixed Costs

Variable costs are costs that are directly affected by the quantity produced. This is always the Direct materials and direct labour involved in producing your product, and change based on sales activity.

- Ex. Direct Materials, Direct Labour, Commission. (i.e. anything that has /chair or per product)

Fixed costs are costs that are set in stone and do **not** change depending on production quantity.

- Ex. Rent, buying PPE (property, plant, equipment), taxes, wages (salaried staff),

Example: A bakery store that makes bread has the following operating costs:

Rent \$4000/month

- Direct Materials \$2/bread
- Direct Labour \$5/bread
- Taxes \$12,000/year,
- Admin staff \$60,000/year
- Advertising costs \$5000/month.

What are the total dollar values for variable costs and fixed costs (per month)?

Answer: VC = DM + DL. (\$7/bread), FC= Rent + Taxes + Admin Staff + Advertising (\$15,000)

****Remember that often, fixed cost will be given per month or per year. Divide by 12 for monthly and multiply by 12 for yearly.***

Percent Change

We're determining the change from the new value from the old value.

$$\% \text{ change} = \frac{\text{New Value} - \text{Old Value}}{\text{Old Value}} \times 100\%$$

Example: 1st year sales are \$600,000, and the % change from second year sales are an increase of 50%. What are 2nd year sales?

Answer: \$900,000

*Rearrange the equation and solve for x.

$$50\% = \frac{x - \$600,000}{\$600,000}$$

$$50\% * \$600,000 = x - \$600,000$$

$$\$300,000 = x - \$600,000$$

$$x = \$900,000$$

Market Share

A company's market share is the are its sales as a % of total industry revenues. It answers the question "what is the size of the company compared to its industry?"

$$\text{Market Share} = \frac{\text{Revenue (\$)}}{\text{Total Market Share Revenue (\$)}}$$

Example: Looking at the following chart below, what is the 2-month total sales revenue for each of the top 4 electronics brands?

Answer: Apple = \$1250, Microsoft = \$650, Samsung = \$500, LG = \$320

What is the market share of LG?

$$\text{Answer: LG market share} = \frac{\$320}{\$2720}$$

LG Market Share = 11.76%

If Apple's total sales for the 2 months were \$3000, what is Apple's new market share?

Answer: New total market share = \$3000 + \$650 + \$500 + \$320 = \$4470

$$\text{Apple new Market share} = \frac{\$3000}{\$4470}$$

$$\text{Apple new Market share} = 67.11\%$$

Monthly Sales	Apple	Microsoft	Samsung	LG
Aug	\$500	\$450	\$300	\$200
Sept	\$750	\$200	\$200	\$120
Total				

Contribution Margin

What you have left over after you sell your product at a selling price and deduct the direct materials and labour (Variable costs) that went into making the product.

$$\text{\$CM/unit} = \text{SP/unit} - \text{totalVC/unit}$$

$$\% \text{ CM} = \frac{\text{SP} - \text{VC}}{\text{SP}}$$

Example: You own a hamburger shop selling burgers. Each patty costs \$1.50/burger, lettuce/burger is \$0.25, cheese is \$0.25, and the buns are \$0.50/burger. You sell each burger for \$5.50. What is your \$CM and %CM.

Answer:

$$\text{SP} = \$5.50 \quad \text{VC} = 1.50 + 0.25 + 0.25 + 0.5 = \$2.5$$

$$\text{CM \$} = 5.50 - \$2.50 = \$3.00$$

$$\text{CM\%} = \frac{\$5.50 - \$2.50}{\$5.50}$$

$$\text{CM\%} = 54\%$$

Alternatively, you want to add pickles that cost you \$0.50 to your burger but would want to keep you CM% the same as before. What price do you need to sell your burgers at? (new VC= \$.250 + pickles (0.5) =3.00)

$$54\% = \frac{x - (\$2.50 + \$0.50)}{x}$$

$$0.54x = x - \$3.00$$

$$\$3.00 = x - 0.54x$$

$$\$3.00 = 0.46x$$

$$x = \$6.52$$