2. Cost KPIs

Introduction to Cost KPIs

As an SME, it is very important to have an overview of your costs and what you are spending money for. You might have high sales which is good but your price may be too low to cover the costs. In this case you would create losses in business operations which can be a cause for bankcruptcy in the long term.

Due to the critical importance of knowing your costs, this section focuses on cost KPIs. First, an example of costs of goods sold is explained and the importance of this KPI to SME's as well as the banker is shown. An explanation on how to reduce costs of goods sold in order to have higher margins is provided. The meaning of margins and mark-ups is explained. The KPIs costs per unit, inventory turnover and customer acquisition costs are introduced. Finally, simple tasks to calculate those KPIs are provided with solutions also provided.

Costs of Goods Sold

Example of calculation of costs of goods sold (COGS):[13]

	Beginning inventory	($ 10 000)
+	Purchases	($ 25 000)
-	Ending inventory	($ 8 000)
=	Costs of goods sold	($ 27 000)

Why is it important?

COMPANY	BANK
• In the example above the COGS are $27 000. • COGS are the direct costs attributable to the production of the goods sold by a company. • When the COGS per unit (for example $27 = $27 000 COGS / 1000 products) are higher than the price (for example $25), this means that the company sells at a price which does not cover its costs, thus the company is losing money. • In this case the company should think about raising prices or reducing costs in order to be profitable.	• For a lender it is very important that the company is able to pay back its loans in future periods. • In order to find that out the bank has to evaluate the business plan of the company. • When the COGS, like in this example, are higher than the price, a company will unlikely generate a positive operative cash flow. • Thus the company will not be able to pay back loans and so the bank will refuse the approval of further loans.

How can a company reduce the costs of goods sold?

- Negotiate! Ask for a discount every time you request an offer or place an order.
- Do not buy inventory or equipment until you need it or you can determine an immediate benefit to either lower costs or improve customer benefits[14]

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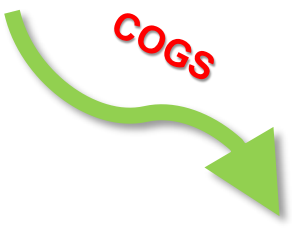


Margin/ Mark-up

Example of calculation of gross profit margin:[15]

$$\text{Gross profit margin (70\%)} = \frac{(\text{Revenue (\$ 1000)} - \text{Costs of goods sold (\$ 300)})}{\text{Revenue (\$ 1000)}} \times 100$$

Why is it important?

COMPANY	BANK
• The gross profit margin in the example above is 70%. • This means that for every dollar generated in sales, the company has 70 cents left over to cover other expenses (not directly related to COGS) and profit. • When a company has a high gross profit margin it is in a better position to have a strong operating profit margin and strong net income. • Especially for new businesses, the higher the gross profit margin, the faster the company reaches the break-even-point and begins earning profits.[16]	• The bank which is financing a new business will be interested in the targeted gross profit margin. • The earlier a company reaches the break-even-point, the earlier it can pay pack its loans, which is in the interest of the bank. • If the gross profit margin is high, the company begins to earn profits and positive operating cash flows from its basic business activities. • This means that this company is more likely to pay back its loans, so the bank will be more interested in financing.

How can a company increase the gross profit margin?

- Know what products that offer the highest gross profit margins and focus on selling them.
- Get ready to forecast and manage your inventory much more efficiently to reduce waste of inventory.[17]

Costs per unit

Example of calculation of costs per unit:[18]

$$\text{Costs per unit (\$8)} = \frac{\text{(Total fixed costs (\$ 300) + Total variable costs (\$ 500))}}{\text{Total units produced (\$ 1000)}}$$

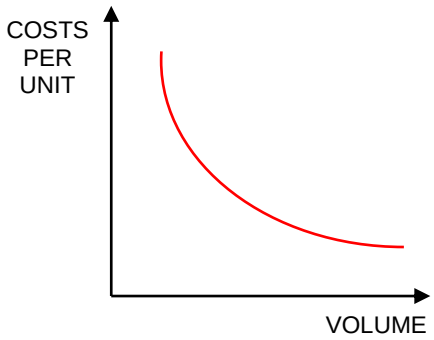
COSTS PER UNIT

Why is it important?

COMPANY	BANK
• The costs per unit in the example above are $8. • Calculating the costs per unit is a way of measuring profitability for a company. • Costs per unit is the breakeven point, or minimum price, a company must sell the product to avoid losses. • If the price for the product in this example would be $6, then there would be a loss of $2 per unit[19]	• The bank will always be interested in the risks of a business model. • If the bank recognizes that fixed costs (for example the rent for the building) are representing a large amount of total costs, this may be of concern. • If the demand is decreasing the company might not be able to cover its fixed costs by the selling of products. • Thus eventually it will not be able to pay back loans.

How can a company decrease the costs per unit?

- Increase your sales! If you sell more products, then your costs per unit will decrease because you cover your overhead expenses by a larger number of items.
- Reduce your fixed costs! Find a location with cheaper rent, consider subleting your facility during down time and evaluate your utility bills, looking for ways to reduce costs.
- Find less expensive materials to use! Try different alternatives, looking for options that cost less but do not compromise quality of your product.[20]



Inventory Turnover

Example of calculation of inventory turnover:[21]

$$\text{Inventory turnover (0.29)} = \frac{\text{Costs of goods sold (\$ 10)}}{(\text{Beginning inventory (\$ 30)} + \text{Ending inventory (\$ 40)})/\,2}$$

Why is it important?

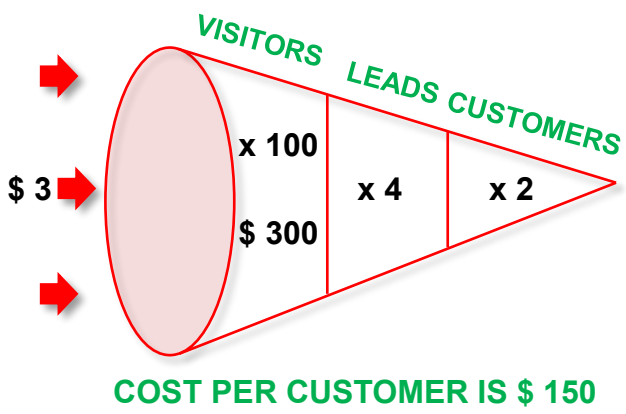
COMPANY	BANK
• In the example above the inventory turnover is 0.29. • The company in this example is not managing its merchandise efficiently because it has a low turnover. • This is a hint that the company overspends by buying too much inventory and wastes resources by storing non-saleable inventory. • It also shows that the company cannot effectively sell the inventory it buys.[22]	• Creditors, like banks, are very interested in this KPI. • This is due to the fact that inventory is often put up as a collateral for loans. • Banks want to know that this inventory will be easy to sell. • In this example the company only sold roughly a third (0.29) of its inventory during the year. This implies that it would take the company approximately 3 years to sell its entire inventory.

How can a company improve the inventory turnover?

- Optimise the supply chain by buying smaller quantities more frequently.
- Encourage clients to pre-order inventory, because this assists the business in planning inventory purchases, potentially increasing inventory turnover, and enhances cash-flow.
- Review and eliminate stagnant inventory to avoid it simply detoriating or occupying valuable warehouse space.[23]

Customer Acquisition Cost

Example of calculation of customer acquisition cost (CAC):[24]



If it costs you $3 per click to bring visitors to your website, then it would cost you $300 to attract 100 new visitors. Assuming a conversion rate of 4%, 4 of those visitors will become leads. Now you know that the cost per lead is $75. If your sales conversion rate is 50% then you will get 2 new customers. Now you know that cost per customer is $150. So if you need 5 new customers, you will need a budget of $750.

Why is it important?

You cannot afford to ignore the cost of customer acquisition, if you are entrepreneur planning your next business. The earlier an SME focuses on this, the better it is.

Also it is important to ask yourself the question if your enterprise realistically expects to acquire customers for considerably less than the amount that your firm can monetize them.

You would look at the gross margin that you would expect to make from a customer over lifetime of your relationship in order to compute the Lifetime Value of a Customer (LTV).

From a funding standpoint, it is useful to know that as soon as you have proven that you have a viable business model your ability to raise capital will dramatially improve.[25]

How can a company decrease the customer aquisition cost?

- Improve your website conversions! An effective way to decrease customer acquisition costs is monitoring, testing, and improving your conversion rates. Your CAC will be lower if you are able to push more customers further down the funnel from your marketing spend and convert into customers.
- Think about your input and output levels for customer acquisition and think about where is the 20% of your customers who drive the most revenue coming from? For example it could be organic search or native advertising. It is useful to find a statistic that is providing this data and concentrating solely on acquiring a similar type of customer.[26]

Task

Assume you are given the following information on a company:

Beginning inventory	$ 5000
Purchases	$ 11000
Ending inventory	$ 6000
Revenue	$ 20000
Total fixed costs	$ 10000
Total variable costs	$ 8000
Total units produced	$ 2000
Costs per click	$ 4
New visitors	2000
Conversion rate for leads	5 %
Sales conversion rate	50 %
Gross margin expected from one customer	$ 15
Lifetime of customer relationship	10 years

Please feel free to solve the following questions in order to practice the contents of cost key performance indicators:

1) Calculate the costs of goods sold.
2) How could a company decrease the costs of goods sold?
3) Calculate the gross profit margin.
4) How could a company improve the gross profit margin?
5) Calculate the costs per unit.
6) How could a company decrease the costs per unit?
7) Calculate the inventory turnover.
8) How often is the inventory sold by the company?
   (= Days sales of inventory)
9) How could the company improve the inventory turnover?
10) Calculate the…
    a) costs for attracting 2000 new visitors.
    b) new leads.
    c) cost per lead.
    d) new customers.
    e) cost per customer.
    f) lifetime value of a customer (LTV).
11) Is the business model of the company viable?
12) How could the company decrease the customer acquisition cost?

Solution

1) Beginning inventory	$ 5000
+ Purchases	$ 11000
- Ending inventory	$ 6000
= Costs of goods sold	**$ 10000**

2) Negotiate and do not buy inventory until you need it.

3) $$\textbf{Gross profit margin } (\mathbf{50}\ \%) = \frac{\text{Revenue } (\$\ 20000) - \text{Costs of goods sold } (\$\ 10000)}{\text{Revenue } (\$\ 20000)}\ x\ 100$$

4) Find out your products that offer the highest gross profit margins and focus on selling them.

5) $$\textbf{Costs per unit } (\$\ \mathbf{9}) = \frac{\text{Total fixed costs } (\$\ 10000) + \text{Total variable costs } (\$\ 8000)}{\text{Total units produced } (2000)}$$

6) Increase your sales, decrease your fixed costs, find less expensive materials to use.

7) $$\textbf{Inventory turnover } (\mathbf{1.82}) = \frac{\text{Costs of goods sold } (\$\ 10000)}{\big(\text{Beginning inventory } (\$\ 5000) + \text{Ending inventory } (\$\ 6000)\big)/\ 2}$$

8) **Days sales of inventory (200,5 days)** = 365 days / Inventory turnover (1.82)

9) Buy smaller quantities more frequently, encourage clients to pre-order inventories, review and eliminate stagnant inventory.

→ **… next page the solution is continued … !!!**

… Continuation of the solution:

10)

a) **Costs for attracting 2000 new visitors ($ 8000)** = Costs per click ($ 4) x New visitors (2000)

b) **New leads (100)** = New visitors (2000) x Conversion rate for leads (5 %)

c) **Cost per lead ($ 80)** = Costs for attracting 2000 new visitors ($ 8000) / new leads (100)

d) **New customers (50)** = New leads (100) x Sales conversion rate (50 %)

e) **Cost per customer ($ 160)** = Costs for attracting 2000 new visitors ($ 8000) / New Customers (50)

f) **LTV ($ 150)** = Gross margin expected from one customer ($ 15) x Lifetime of customer relationship (10 years)

11) LTV ($ 150) – Cost per customer ($ 160) = **- $ 10**

→ As the lifetime value of a customer should be higher than the cost per customer, the business modell is not viable.

12) Improve your website conversions, concentrate solely on acquiring those customers who drive the most revenue coming from.

SOLUTION