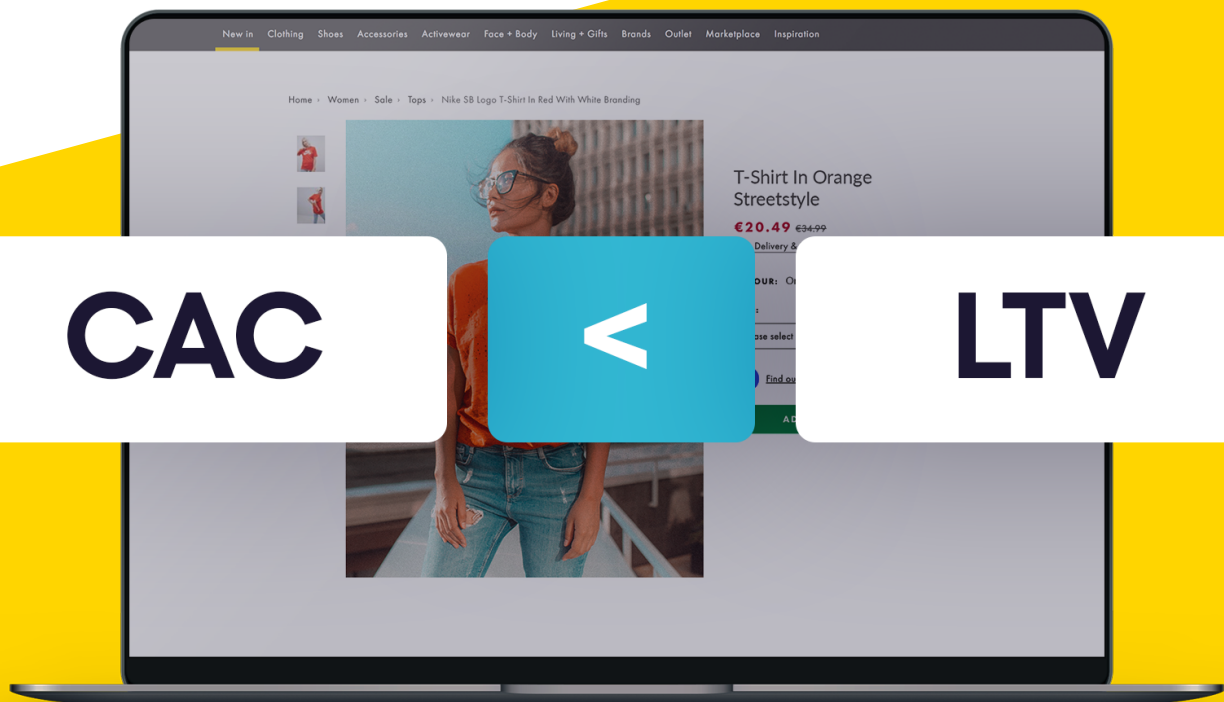


Online Retail Math Cheat Sheet



Use this Cheat Sheet to find your
Customer Acquisition Cost : Customer Lifetime Value ratio

Online Retail Math Cheat Sheet

Is your Customer Acquisition Cost (CAC) lower than your Customer Lifetime Value (LTV)?

Use this Cheat Sheet to find your CAC:LTV Ratio. **You need five KPIs to solve the formula:**

$$\text{Customer Acquisition Cost} < \text{Customer Lifetime Value}$$
$$\text{CPV} / \text{CR} \qquad \qquad \qquad \text{AOV} * \text{F} * \text{GM}$$

Customer Acquisition Cost KPIs

1

Cost Per Visit

CPV = Total marketing costs (acquisition and retention) / Total number of visits

Example:

Total marketing costs: \$500,000
Number of visits: 2,000,000

$500,000 / 2,000,000 = 0.25$
Company A spends \$0.25 for every visit

2

Conversion Rate

CR = Total number of conversions / Total number of visits

Example:

Number of conversions: 54,000
Number of visits: 2,000,000

$54,000 / 2,000,000 = 0.027$
Company A has a conversion rate of 2.7%

Customer Lifetime Value KPIs

3

Average Order Value

AOV = Total sales revenue / Total number of orders

Example:

Total sales revenue: \$1,000,000
Total number of orders: 40,000

$1,000,000 / 40,000 = 25$
Company A has an Average Order Value of \$25

4

Purchase Frequency

F = Total number of orders / Total number of unique customers

Example:

Total number of orders: 40,000
Total number of unique customers: 15,000

$40,000 / 15,000 = 2.67$
Company A has a Purchase Frequency of 2.67

5

Gross Margin

GM = Total sales revenue - Cost of goods sold (COGS)** / Total sales revenue

Example:

Total sales revenue: \$800,000
COGS: \$470,000

$800,000 - 470,000 / 800,000 = .41$
Company A has a Gross Margin of 41%

CAC	LTV
CPV / CR	AOV * F * GM
0.25 / 0.027	25 * 2.67 * .41
9.26	27.37
1 : 2.7	

*Examples are based on an annual time period, but any consistent period can be used.

**Cost of Goods Sold (COGS) = Beginning Inventory (the inventory left from last year) + Additional Purchases During Period - Ending Inventory (inventory left at the end of the year)

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Customer Acquisition Cost KPIs

1. Cost Per Visit (CPV)

2. Conversion Rate (CR)

Customer Lifetime Value KPIs

3. Average Order Value (AOV)

4. Purchase Frequency (F)

5. Gross Margin (GM)

Example

$$\begin{array}{ccc} \text{CAC} & & \text{LTV} \\ \text{CPV} / \text{CR} & \longrightarrow & \text{AOV} * \text{F} * \text{GM} \\ 0.25 / 0.027 & \longrightarrow & 25 * 2.67 * .41 \\ 9.26 & \longrightarrow & 27.37 \end{array} \qquad \qquad \qquad \mathbf{1 : 2.7}$$

*Examples are based on an annual time period, but any consistent period can be used.
**Cost of Goods Sold (COGS) = Beginning Inventory (the inventory left from last year) + Additional Purchases During Period - Ending Inventory (inventory left at the end of the year)