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Customer Acquisition Cost and Lifetime Value

If you are running an ecommerce business – it is essential that you know your customer acquisition cost (CAC) and lifetime value of a customer (LTV). Spoiler – if CAC is greater than your LTV than your business model is flawed and not sustainable!

CAC and LTV defined

- **Customer Acquisition Cost (CAC)** – Just as it sounds, this is the cost of acquiring new customers.
- **Lifetime Value of a Customer (LTV)** - is the total worth (expressed in $) of a customer over the whole period of the relationship with the business.
- **CAC and LTV relationship** – the LTV of a customer should **always** be greater than the CAC. If not, that means you are spending more to acquire a customer than the revenue you are generating from them – i.e. you're running at a loss right out of the gate.
- There are many ways to calculate but we've found the following easy to follow and pretty spot on.

Calculating CAC

- CAC is fairly straightforward to calculate (if you have good data). Take the marketing spend attributable to the sales channel you are measuring (e.g. Shopify) and divide that by new customers during that period.
    - Marketing spend would include paid spend – but potentially other items as well - such as allocation of marketing salaries, marketing contractor spend, etc.
- For example – if you spent $100,000 on Facebook targeted ads and gained 500 new customers, your CAC would be $200.00

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First step is to gather the data and run the calculations of the components!

Calculating LTV

- LTV is a bit more complicated and has a few steps
- You'll need understand the following components:
  - Average Order Value (AOV)
  - Purchase Frequency
  - Customer Value
  - Lifespan of a Customer

1. **Average Order Value – basically average revenue per order**
   - *AOV = Total Revenue during a period / # of orders over that period*
2. **Purchase Frequency – how often customers order**
   - *Purchase Frequency = # of orders during a period / # unique customers*
3. **Customer Value**
   - *Customer Value = AOV X Purchase Frequency*
4. **Lifespan of a Customer – the time period in which a customer will consistently purchase**
   - This is a bit difficult to calculate – if you have a few years of data, you can calculate length of time between first order and last order for each customer and take an average for all customers.
   - Alternatively, if you don't have the data - Shopify advises "For newer stores, a lifespan of three years will work fine as an estimate". You can be conservative and taper this down if needed.
5. **Lifetime Value – finally we have the components!**
   - *Lifetime Value = Customer Value X Lifespan of a Customer*
6. **Lifetime Value Gross Margin**
   - *Lifetime Value X Average Gross Margin %*

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It's important to compare your customer acquisition cost to Customer LTV AND also Customer LTV Gross Margin.

Example

- Let's say our CAC is $200.00 (from our previous example).
- Total Revenue for one year was $1,000,000 and we had 3,000 orders – AOV is $333.33.
- For the year we had 3,000 orders from the 2,500 unique customers – Purchase Frequency is 1.2
- Customer Value is $400 (AOV of $333.33 X Purchase Frequency of 1.2).
- Lifespan of Customer is 2 years.
- **Customer Lifetime Value is $800 (Customer Value of $400 x 2 years).**
- **Lifetime Value Gross Margin (assuming GM is 40%) - $320 ($800 X 40%)**

Analysis

- Based on the example above – our CAC is $200 and Customer LTV is $800; so our ratio is 4 (LTV / CAC).
- On the face – this appears pretty healthy; however, it's VERY important to factor in your gross margin on that revenue.
- With our gross margins at 40% - the LTV Gross Margin is $320. Luckily - we are still positive and we are spending $200 to obtain $320 in gross margin. However, it's much tighter than simply comparing CAC to LTV.
- Make sure you are reviewing these metrics frequently and if LTV or LTV Gross Margin is less than your Customer Acquisition Cost, this is a big problem and you should evaluate:
    - Efficiency of marketing spend
    - Conversion of customers
    - Pricing structure
    - Sales mix
    - COGS

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About Us & Services

Our accounting and finance expertise allows us to take transactional data and provide financial insights at the most granular level. Enabling growth and confident decision making is our #1 goal.

Outsourced Controller & Accounting Team

- Transactional bookkeeping with emphasis on financial reporting output
- Accounts payable management
- Implementation of a strong accounting framework following US generally accepted accounting principles
- Balance sheet reconciliations
- Audit support

Outsourced CFO & Finance Team

- Investor & Management ready financial reporting
- Budgeting and cash flow forecasting
- Five year strategic financial planning
- Sell side and buy side financial due diligence

KPI Reporting & Analytics Automation

- Customized KPI dashboards
- CAC / LTV analysis
- Retail velocity review
- Contribution margin drill down
- Profitability review by channel