STEP 17

Estimate the Lifetime Value (LTV) of an Acquired Customer

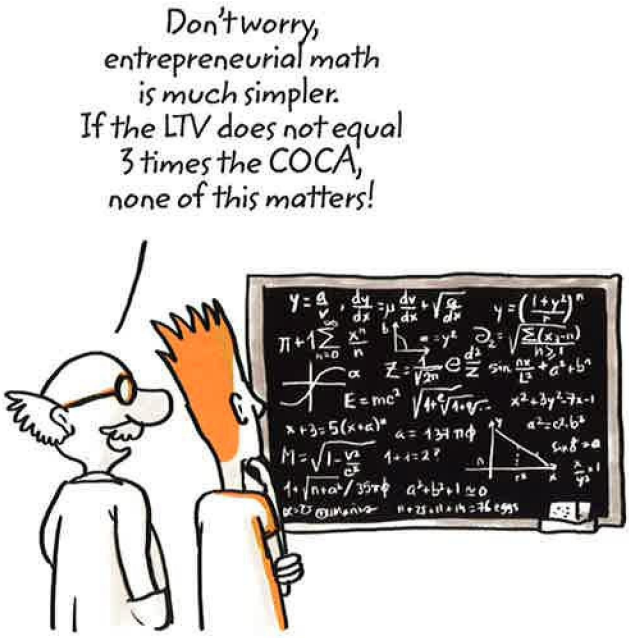
WHAT IS STEP 17, ESTIMATE THE LIFETIME VALUE OF AN ACQUIRED CUSTOMER?

Estimate the total profit you will get from a new customer, on average, over the time period that the customer would stay with you.

WHY DO WE DO THIS STEP, AND WHY DO WE DO IT NOW?

The LTV is an important number because you will compare it against your Cost of Customer Acquisition (COCA) to see if your startup will make more money from a customer than it costs to advertise and otherwise convince a customer to buy your product. As a rule of thumb, LTV should be at least three times greater than the COCA in order for you to be profitable, though this factor varies wildly from industry to industry. Knowing what drives LTV will help you make smart decisions about your product. The LTV can now be estimated because of the work you've done in Step 15, Design a Business Model, and Step 16, Set Your Pricing Framework.

By the Book: See pages 181–190 of *Disciplined Entrepreneurship* for basic knowledge on this step. See page 190–193 of *Disciplined Entrepreneurship* for examples of how different companies and teams have addressed this step.



It may seem complicated, but COCA is just an estimate that will help you understand the critical drivers behind your company's financial success.

PROCESS GUIDE

Now that you have chosen a business model (at least an initial one) and a pricing range in the previous two steps, you can develop an estimate of approximately how much a new average customer is worth to you. You will not know this number to great precision, but it is essential to understand the general order of magnitude and what drives the profitability of a new customer. Is it the initial sale? Consumables? Retention rates? Gross margin? Volume? Repurchases? Timing of purchases?

Common inputs to estimate the LTV include:

- One-time revenue (the initial purchase price of a product)
- Recurring revenue (maintenance contracts, etc.)
- Other revenue (e.g., upselling)
- Gross margin for each revenue stream (price of your product, minus production costs—do not include sales, R&D, or administrative expenses in this number)
- Retention rate
- Life of product
- Repurchase rate
- Cost of capital for your business[1] (not for you personally, but for your business)

[1]Cost of capital is essentially the interest rate you will be required to pay to get more money for your new venture.

Once you know these numbers, you can build the five-year profit stream for your product. There is one last important step that you need to do. You will need to convert this revenue stream into one number with a consistent unit. That consistent unit will be "today's dollars." Today's dollars means the time at which you start your sales process and have to spend money to acquire the customers. As such you will then be comparing like for like when you compare LTV with COCA.

To do this conversion you will utilize a well know concept to people in finance called "Net Present Value" (NPV). Doing the calculation for NPV means that you discount future cash flows by the cost of capital based on how far into the future the cash flow happens. Cash today is better than cash a year from now. Cash a year from now is likewise better than cash two years from now.

What makes this especially important for you is that the cost of capital for your startup is so high. The reason for this is that your new venture is very risky and has few hard assets. Banks are very unlikely to lend money to your business, so you have to get it from other channels that will charge a premium for taking on this risk and extra work they will have to do to monitor their investment. These investors (usually equity investors as opposed to debt stakeholders) demand a return well beyond the banks or more traditional investment opportunities like public stocks or even venture capitalists (who will enter at a later stage but still expect a substantial return). The good news is that as you succeed, you will reduce the risk in your business and the cost of capital will come down, but at the beginning it is very high—50 percent is the number I suggest you use. In the worksheet in this chapter, I have helped you with a row that gives you a NPV discount factor for each year to take all of this into consideration.

Depending on your industry, you may find that a time period other than five years is more appropriate for your product. For instance, the LTV for customers purchasing a new power plant or pharmaceutical may not be comprehensive enough if you only look at the first five years. When determining whether to change this time period, consider first the length of the sales cycle, and second the amount of time it takes to develop your product. If you choose a different time period, you will still only make estimations based on five time periods—for instance, if you choose 10 years as your time period, then each interval will become two years, so that "t=1" on the worksheet becomes two years, "t=2" becomes four years, and so on.

The LTV tells you the unit profitability of how much you will make by acquiring one additional customer, minus the marginal costs—that is, the parts and labor—of making the product(s) that customer will buy. The LTV does not include marketing or sales costs, which you will estimate in Step 19, Estimate the Cost of Customer Acquisition (COCA); nor does it include research and development costs to develop the product. It also does not include the general and administrative costs (things like executive team, real estate, legal, human resources, and other overhead functions, most of which are fixed costs) required to have a company to support the overall operations.

There is great detail on how to estimate the LTV in the *Disciplined Entrepreneurship* book, so I will not repeat all that information here. I encourage you to review the material and use it as a reference when completing the worksheets below.

GENERAL EXERCISES TO UNDERSTAND CONCEPT

See the back of the book for answers to these questions.

1. **Pet Rock:** In 1975, Gary Dahl is credited with inventing the Pet Rock. It sold for $3.95 and provided a pet that required no maintenance. It became a craze, but then it died almost as

quickly and there was no lasting company. It seemed to be a failed business idea. Why do you think that is?

2. **Estimate the LTV and the Drivers:** Estimate what you think the LTV range is for customers of the following businesses and what drives them:
   a. Google
   b. Bicycle shop
   c. Used-car dealership
   d. A new Lamborghini sales and service dealership

WORKSHEET

Inputs to the Worksheet

One-Time Charge(s)

What will your one-time charges be for each customer (e.g., initial purchase price of product)? _____

What is your estimated profit margin on your one-time charges? _____

(One-Time Charge – Marginal Production Cost)/One-Time Charge = Profit Margin

For example, if your one-time charge is $100 and the cost to make that one unit of product is $20, your profit margin is (100-20)/100 = 80%). (General estimate is fine; don't add more precision than is appropriate at this point—it can be misleading.)

What is the life of the product before a customer has to repurchase the product? _____

What percentage of customers will repurchase? _____

What will your recurring revenue streams be? _____

What is your profit margin on your recurring revenue streams? _____

What is your retention rate for your recurring revenue streams?

After first year: _____

After second year: _____

After third year: _____

After fourth year: _____

After fifth year: _____

What other revenue sources will you have? What will your profit margin be, and is there a yearly retention rate applicable to them?

_____

_____

What will your cost of capital be, and why? (If you don't know, assume 50 percent. If you do know, explain below why you think your cost of capital will be different.)

_____

_____

Calculations to Estimate the LTV

Input	t = 0 (Today)	t = 1 (1 year)	t = 2 (2 years)	t = 3 (3 years)	t = 4 (4 years)	t =5 (5 years)
A. One-time revenue amount						
B. One-time revenue profit margin (%)						
C. One-time revenue profit (row A * B)						
D. Recurring revenue amount						
E. Recurring revenue profit margin (%)						
F. Recurring revenue profit (row D * E)						
G. Other revenue amount						
H. Other revenue profit margin (%)						
I. Other revenue profit (row G * H)						
J. Sum of profit for time period						
K. Default cost of capital factor: Discount factor to NPV (@50%/year and assuming units of time = years)[1]	1.0	.67	.44	.30	.20	.13
L. NPV of each item (row J * K)						
M. Sum of all NPVs (sum of all cells in row L)	_____					

[1]To calculate the present value (PV) of a future value of cash (FV) where i = the interest rate and t = units of time past, the formula is $PV = FV * (1 / (1+i)^t)$

Interpretation of Estimation

1. What would you round your LTV estimation to? What range do you feel comfortable with?

2. Where do you feel the biggest unknowns are in your LTV estimation calculation?

3. Does the number seem reasonable?

4. What are the key drivers of the LTV if you want to increase it?

5. Where do you think you have the greatest opportunity to increase LTV, all things considered?

Wow, that was probably exhausting and you feel you had to make a lot of assumptions that may turn out to not come true. They won't all come true, count on it. Still, it is better to try to plan for the future and understand where the current path will take you with reasonable assumptions.

As U.S. president and highly decorated general Dwight D. Eisenhower said, it is the knowledge gained from planning that is much more important than the plan itself. You certainly don't want to go into battle with a new product and no plan and just a belief that it will all work out, because if you had spent some time analyzing first, you would have been able to eliminate a lot of plans and paths that would be unlikely to work.

Now you will take your knowledge forward from the LTV and craft a general direction that has a path to success and glory.