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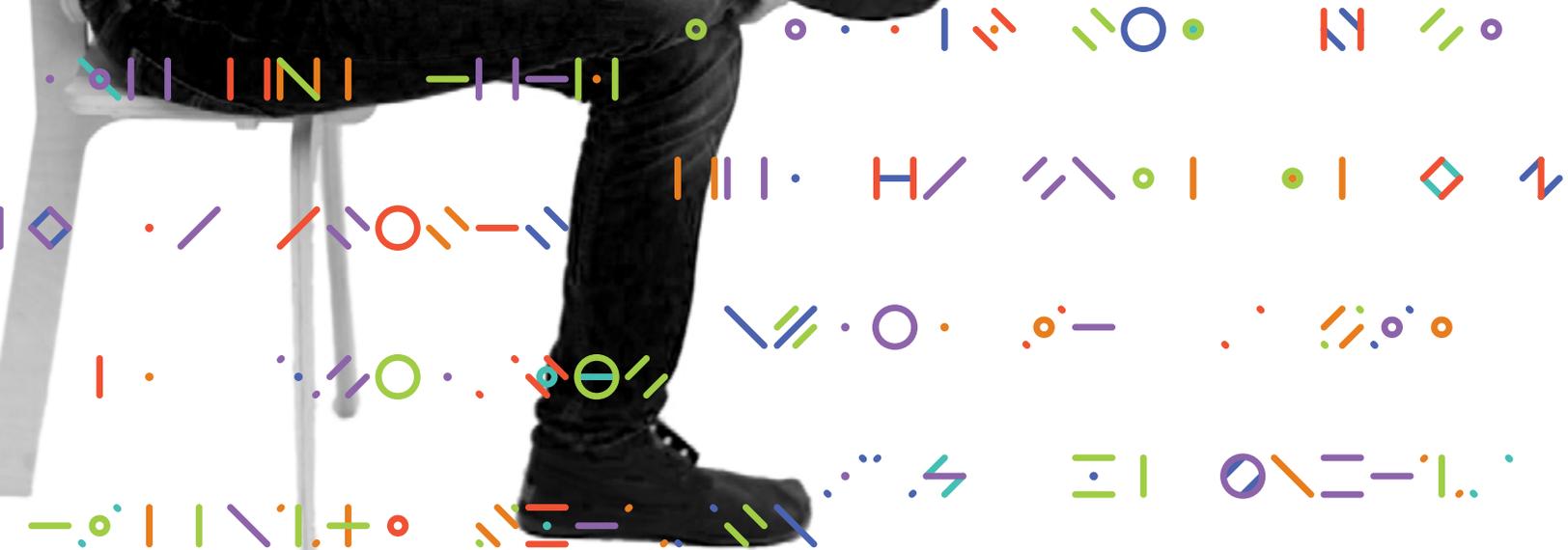# THE DEFINITIVE GUIDE TO CUSTOMER LIFETIME VALUE

About the Author

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Dominique is the VP of marketing at AgilOne. She joined from Totango, a leader in customer success management software and was previously CMO at Fundly, helping non-profits with social media fundraising, and CEO and CMO at LogLogic a big data analytics company which was sold to TIBCO.

She has lived and worked on four continents and when not at work plays ice-hockey or hits the road sightseeing with her husband and three kids.

What is Customer Lifetime Value?

CLV is a prediction of the revenue a customer will provide. It is a comprehensive estimate of the value your company will earn from a relationship with a customer.

CLV is typically used to compare a customer's acquisition or retention costs with the revenue that (s)he will bring in over time. If calculated correctly, CLV is a more quantitative way to measure return on marketing investment than any other traditional metrics which look at aggregate profitability rather than at individual customer profiles.

While aggregate metrics don't differentiate between customers with different profitabilities, CLV and predicted CLV allow marketers to make finer distinctions. With an accurate CLV marketers could optimize customer acquisition or retention spending more accurately.

Calculating individualized CLVs requires a lot of computation and is not something that can be done manually for thousands or millions of customers.

Why does it matter?

Being able to see a customer's LTV fundamentally shifts our ideas of how and to whom we market. Traditionally, marketers only focused on acquisition and retentions cost, and ways to minimize them. They didn't factor in the value that could be derived from customers over their lifetime with a company. Let's take a look at Jane and Joe in the example below.

Jane clicked through to your website from a fashion blog, and Joe clicked through a Yahoo! banner ad with a coupon code. It's very likely that Jane is more interested in your brand than Joe, who might have just been interested in the discount. Predictive algorithms can recognize this difference and calculate CLV accordingly. I'll discuss other signals later on in the book.

Now that you know how much your customers are really worth you can now accurately optimize your marketing. Let's take another look at Jane and Joe. Our algorithms predicted that Jane had a high LTV because she clicked through from a fashion blog. Click-throughs from a blog are usually more expensive than click-throughs from banner ads because of the reasons I described in the preceding paragraph. Therefore, the customer acquisition cost is also higher.

Customer	First Order Value	Acquisition Cost	Predicted CLV	Total Value	Net Profit
Jane	$150	$50	$450	$450	$400
Joe	$80	$10	$150	$150	$140

Note: If the customer is already acquired and you're projecting their value for differentiating service, promotional targeting etc. then you should not use Customer Acquisition cost since the customer is already acquired and the acquisition cost is a sunk cost.

Although, Jane's acquisition cost is significantly higher, she's a more profitable customer. The extra cost of acquiring Jane will be offset by her high CLV, the amount she'll spent over her lifetime. The same rationale can be applied to retention cost as well, when you're deciding how much to spend to retain a customer. Let's say Jane and Joe are existing customers. Your algorithms have detected that Jane and Joe haven't made their usual purchases for the last 2 months indicating that they may be shopping somewhere else, and you are at risk of losing them. You have to reactivate them with a perk of incentive.

Customer	First Order Value	Cost of Perk	Predicted CLV	Total Value	Net Profit
Jane	$150	$100	$300	$200	$200
Joe	$80	$100	$70	-$30	-$30

The predicted CLVin the second table is the remaining value after the First order value is deducted from the original CLV.

In this case you can see that the cost of reactivating Joe is higher than his CLV, and reactivating him with the same perk would mean a negative net profit. If a marketer had quick access to this sort of projection a loss could be avoided.

CLV predictions allow you to see the future profitability of your decisions on a customer-to-customer basis. You could ask your marketing team questions like: How much should I spend to acquire this customer? Will this discount to this customer hurt my bottom line? Is this customer costing too much to service? You can now optimize your acquisition and retention budget selectively for each individual customer. The days of indiscriminate, unsystematic marketing spending are over; with CLV predictions it's now possible to optimize spending on a customer-by-customer basis.

But like any method, the validity and utility of CLV depends on how it's calculated, and the variables used in that model. In this ebook will walk you through:

- **The 3 ways to calculate LTV.**
- **Signals that indicate a potentially high value customer.**
- **The 7 most common mistakes made when calculating LTV.**

Calculating a Customer's Lifetime Value

There are many ways to define & calculate lifetime value. We'll cover the 3 most important definitions and describe when & how you would use each of these.

The 3 most used CLV models are Historical LTV, Predicted LTV and Upside LTV. To explain the different models, let's assume Jane is a hockey player and she regularly buys hockey tape from a store for her weekly games. Looking at her purchases over a certain period of time in the past, her Historical LTV may be $100. Jane's Predicted LTV, buying just hockey tape, may be $150 for an X number of years in the future. Jane's Upside LTV looks at how much she may spend if the hockey store can convince her to buy more things in addition to the hockey tape. Let's take a more detailed look at the benefits and pitfalls of each method.

Historical Lifetime Value

Historical customer lifetime value is defined as the expected profits (gross margin minus direct costs) from customers over their lifetime, discounted for the cost of capital & adjusted for acquisition costs.

Historical lifetime value is useful for detecting changes or trends in your customer base. By comparing historical lifetime value year over year, you can see whether a customer's value is trending up or down. For example, if a customer's historical lifetime value is trending down, this is called value migration and this is almost always an early warning signal of churn.

Pitfalls

If you were to only look at historical lifetime value, you would significantly underestimate the potential of a customer and likely underinvest in the acquisition or retention of certain customers.

There are many pitfalls when it comes to calculating lifetime value. I have written about this in more detail in the Common Lifetime Value Mistakes.

Predicted Lifetime Value

Predicted lifetime value is the projected value of a customer looking forward two to three years. This metric is especially useful when deciding how much money to invest in acquiring or retaining a specific customer. It can also be used to identify high value customers very early in the lifecycle. If you could recognize the high potential of a customer early in the lifecycle you could start differentiated treatment right away and increase the odds this high value customer will stick with you.

Pitfalls

Also, the most important question to ask when using predicted lifetime value is how many years to look into the future. For the purpose of deciding on acquisition spending it is best to use short-term windows, from one to three years, due to the changing nature of acquisition sources and offers.

Upside Lifetime Value

Upside lifetime value or size of wallet is the most underutilized LTV metric. Upside Lifetime Value calculates the size of wallet from which you can know the potential upside for each customer. By calculating upside lifetime value for each customer, you can identify customers who have significant upsell potential. You can then direct your sales team's attention towards these customers or design a marketing campaign specifically for this group.

Pitfalls

It can be complicated to calculate. It requires hiring data scientists to find and integrate data from different sources and channels, augmenting that data with difficult to find demographic information, cleaning & deduplicating the data, and spending whatever little time is remaining in their work day to figuring out and developing predictive algorithms. It requires time, effort and money, and distracts the CMO and her team from actual marketing.

Yet, it is one of the most powerful ways to identify which customers to focus on. You could hire a team of scientists to wrangle with your data from multiple marketing tools, or consider installing a platform that automatically pulls, optimizes and makes data actionable.

High Value Customer Signals

Who are the super shoppers? We analyzed millions of shopper profiles and identified the following signals that may indicate if a prospect will become a high value shopper. Using this information you may decide to spend more money to acquire or retain these types of shoppers.

Size of first orders
In our data we've seen that customers who make larger order are more likely to become a super-shopper. A higher order value in the first order may indicate a larger wallet, or a greater interest in the brand.

Discount on first orders(if any)
Our results show that customers who use discounts on their first purchase are less likely to become a super shopper. A customer who doesn't use a discount on the first order means that s/he is attracted to the store for reasons other than price and savings. This can indicate a higher chance of becoming a super-shopper

Multiple types of products in first orders
Having multiple types of products in a cart indicates that a customer is looking for a one-stop shopping destination. A customer with socks and a watch in the first order has a higher chance of becoming a super shopper than a customer who is simply buying pants (even if they're the same price).

Time between first and second orders
The shorter the time between the first and the second order the higher the likelihood that a customer will become a super shopper. The time between orders indicates a customer's enthusiasm over a brand and their satisfaction with its products or buying experience.

Time spent on website
The more time a customer spends on the website the higher the likelihood of them buying more. Naturally, spending more time on the website means greater exposure to different products and marketing messages.

Email open/click rates

Individuals that interact with email campaigns are more likely to be high value customers. The higher open rate indicates a greater level of interest and potential lifetime value. This means that your marketing messages and offers that are sent to them should treat them as such.

Social media engagement

Data shows that customers who are more engaged with a brand on social media are more likely to become super shoppers. When customers are engaged on social media, they become part of the conversation and feel listened to. This is the start of a true brand loyalist.

Acquisition sources

Where a customer comes from matters. Did the customer click through a banner ad on Yahoo? Or did the customer come from a fashion blog? The customer who came from a fashion blog is more likely interested and influenced by style and clothing than a customer who stumbled across your website through a Yahoo! ad.

Geography

Customers in certain zip codes, like Beverley Hills, have a higher likelihood-to-buy and a higher lifetime value than Campbell, Alaska. Not only do zip codes indicate average income levels and population density, but they can also be used to proximate how far a customer is from store locations and how direct mail campaigns would come into play.

Seasonality

It's important to discern holiday-shoppers from loyal shoppers. Holiday shoppers are generally customers buying gifts in a one-time or yearly purchase. Making sure you recognize who they are is important so you don't spend valuable marketing resources on them.

Common Mistakes When Calculating Lifetime Value

Calculting LTV can be extremely complex. Whether you calculate your customers' lifetime value by yourself or have data scientists run the math for you, there are dozens of choices to make. We've gathered a list of the most common mistakes made by marketer and data scientists alike when calculating LTV.

Not Recognizing Change

It is the change in lifetime value that signals underlying trends, risks and opportunities. When a High LTV customer is trending to Low LTV it's a signal that this valuable customer is at-risk. You as a marketer need to focus on this. If you can't do this you may believe that a customer is a top shopper, whereas in reality their value is declining and the customer is about to take their business to a competitor.

Discounts

Do we take into account discounts that are given to customers? Since discounts can be substantial in some verticals, it is important to reduce revenue streams with the actual discounts that a particular customer has received. If you don't take discounts into account, what may look like a top shopper may actually be an unprofitable customer.

Returns

Nine percent of all retail sales in the US are returned by consumers, costing companies about $264 billion dollars per year. Some customers return more than they keep. Omitting returns from a historical lifetime value calculation would result in huge errors when it comes to identifying who are high value or low value customers.

Not accounting for the entire household

Perhaps I spend only very little with a brand myself, but by acquiring me, the brand has also acquired the revenues from my spouse and children. When comparing the costs to acquire me to the revenues that can be earned from my entire household, I could be very profitable investment.

Duplicate data

The average American has three email addresses and this number is still increasing every year. If you want to be able to calculate lifetime accurately you need to be able to do fuzzy matching of email address to conclude that Jane.Doe@personal.com and Jane.Doe@work.com, both living in Mountain View, are the same person.

Omnichannel data is not integrated

Most companies have separate order databases for different channels. The orders from the web are recorded separately from the brick & mortar store purchases and those are separate from sales made through the call center. Unless you can link purchases from these separate channels to the same physical person, you will not have an accurate picture of lifetime value.

Not recognizing changing customer behavior

Customer X may have made only one big purchase last year, but this year they are making smaller purchases more often. While the customer lifetime value of this person hasn't changed, your marketing approach and goals for the person should be very different in both cases.

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Request a Demo

Increase your revenue and delight your customers with in-depth customer profiling, predictive marketing intelligence, and targeted campaigns. Get a free demo of AgilOne's Predictive Marketing Platform today!

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