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Customer lifetime value: The customer compass

Through targeted investments, companies can identify their most valuable customers in three steps and secure their loyalty long term.

This article was a collaborative effort by Max Ackermann, Karel Dörner, Fabian Frick, Marcus Keutel, and Philipp Kluge.

Traditional brand owners and retailers are increasingly encroaching into the e-commerce channel—and for good reason. After all, digital engagement with customers provides companies with valuable data on consumer behavior that allows them to optimize marketing and product development. In addition, by operating their own sales channel, providers retain control over user experience and brand image. Enter COVID-19, and suddenly the Internet is rapidly becoming the shopping channel of choice for more and more consumers, a trend that is likely to persist beyond the pandemic.

That said, the new e-commerce players also face a challenge: winning and retaining customers is an expensive affair. That is why it is crucial for success to invest primarily in those customers who are lucrative for the company in the long run. It is important to understand these customers intimately, to engage them with the right channels, and to tailor offers to their context and needs. This can only be achieved by drawing on customer-related metrics—of which customer lifetime value (CLV) is first among equals—and by interlinking them intelligently as the foundation for effective and efficient marketing.

Digitally aligned companies and start-ups have long been successfully applying and refining this approach (see sidebar, "'CLV is our core steering metric,' Four questions for Emmanuel Thomassin, Chief Financial Officer of Delivery Hero"). Many traditional manufacturers and retailers, on the other hand, still have some catching up to do. To make the most of the CLV approach and use it to manage their e-commerce business, they should adopt a long-term strategy and proceed systematically in three steps: collect data, determine true customer value, and target investments to the most valuable customers.

Collect data throughout the customer journey

To estimate the current and future value of customers and keeping privacy regulations in mind, companies need to collect relevant data points on as many customers and their behavior as possible over multiple years. This is because the corresponding analytical models are dependent on the availability of sufficient amounts of information to identify relevant patterns. The greater the volume of data available, the more meaningful and accurate the analyses. Three categories of data are required:

— Transaction data such as shopping timeline, product information, prices, method of payment, delivery, or returns are supplied by the e-commerce platform and the connected financial systems.

— Demographic data such as gender, age, occupation, and place of residence are condensed into customer profiles in order to better predict future shopping behavior and personalize marketing actions.

— Marketing data such as search behavior, response to campaigns, and external online data help to flesh out the respective customer profile and, in turn, deepen customer knowledge, including as regards preferences or purchasing behavior.

Despite ample data, it is often difficult to clearly identify customers throughout the entire customer journey. This is partly due to purchases made across different channels, for instance, in the company's own online and offline stores or perhaps through third-party suppliers such as retail partners, which often do not require registration (with an e-mail address, etc.) for identification.

Successful providers solve this problem with an integrated customer database (customer data platform) that can recognize customers even when they do not sign in. For this purpose, profiles comprising as many attributes as possible are created for visitors to the various channels (based on browser data, among other things). Then, returning visitors (including to different channels) are identified by matching them against the full array of profiles compiled. Aside from linking different data sources and formats, the customer data platform also enables the integration of suitable external systems as well as customer segmentation according to behavior and demographic data. Key steps in this context include anchoring the system's

continuous improvement, but also data use by the organization's departments from the outset.

Determining the true value of customers

What happens to the data collected? Here, in the second step, is where customer lifetime value (CLV) comes into play. This is because it can be used to measure a customer's value, in the long term, over their entire time as a customer of the company. This value is compared with the customer acquisition/retention costs (CAC), i.e. the marketing investments made or planned that are necessary to acquire and retain the customer. Finally, both indicators are linked to derive recommendations for action with regard to strategic and operational decisions (Exhibit 1).
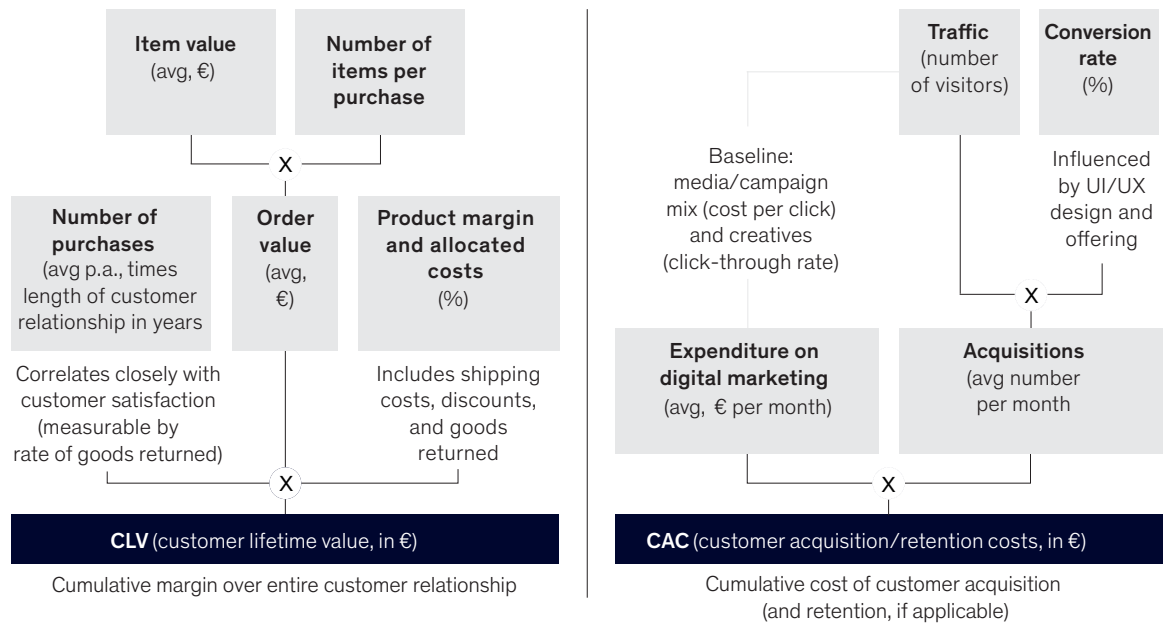
A distinction is made between three levels of complexity when modeling CLV and CAC:

The **descriptive model** calculates CLV using historical consumer data and identifies behavioral patterns of customer groups mostly through simple manual analysis. This comparatively simple method yields rapid results, but they are merely hypotheses and therefore of limited value; they can only serve as an initial indicator of CLV for potential decisions.

The **predictive model** uses historical data patterns to determine future CLV. Consequently, the results are more accurate and meaningful as the customer's individual profile is factored into the equation along with their remaining time as a customer. Backed by this knowledge, CLV managers can make more effective decisions. However, this model requires more comprehensive advanced analytics

Exhibit 1

The ratio of CLV to CAC reveals a customer's true value—and the marketing team's investment.

Item value (avg, €)	Number of items per purchase

Number of purchases (avg p.a., times length of customer relationship in years)	Order value (avg, €)	Product margin and allocated costs (%)

Correlates closely with customer satisfaction (measurable by rate of goods returned)

Includes shipping costs, discounts, and goods returned

CLV (customer lifetime value, in €)

Cumulative margin over entire customer relationship

Traffic (number of visitors)	Conversion rate (%)

Baseline: media/campaign mix (cost per click) and creatives (click-through rate)

Influenced by UI/UX design and offering

Expenditure on digital marketing (avg, € per month)	Acquisitions (avg number per month)

CAC (customer acquisition/retention costs, in €)

Cumulative cost of customer acquisition (and retention, if applicable)

Source: McKinsey analysis

capabilities, such as customer identification across multiple channels. For a 360-degree view, it is worth having complete historical customer data as well as regular updates of sales and cost data.

The **operative model** goes one step further: it automatically predicts CLVs using machine learning and makes initial recommendations for decisions, amplifying the CLV effect. In addition, predictive accuracy and decision making improve with each update. For the operational teams, this means that rather than elaborating decision recommendations, their primary job is to review and continuously monitor them. Yet, creating such models is a much more complex endeavor that can take months, if not years.

For all three models, continuous updating data and calculations is indispensable. For example, CLV must be adjusted after each customer purchase, but the CAC value must also be increased if, for instance, a marketing campaign is launched for a specific customer group. This is essential so that the data and the associated analytics results can be used for future campaigns.

Targeted investment in high-value customers

The last and most important step is to evaluate the CLV and CAC computations in such a way that the company can derive strategic and operational recommendations for action and decisions from them. It is essential to consistently measure the impact of the respective decisions, for example, the increase in CLV as a result of certain marketing measures.

"CLV is our core steering metric"
Four questions for Emmanuel Thomassin, Chief Financial Officer of Delivery Hero

Just how important is CLV for Delivery Hero?
Customer lifetime value is one of our core metrics. It's a topic we're driving intensively at all levels of the organization and we have set clear goals from which we can only deviate in exceptional cases. We use CLV to support our strategic and operational decisions, such as whether to enter a new market or whether to continue or end a marketing campaign.

So how do you go about that?
We have a standardized approach for all our markets. CLV monitoring is directly linked to our operational marketing systems and thus directly influences our investments. It is crucial to continuously adapt and improve the calculation of CLV and the corresponding operationalization in marketing. Initially, for example, we only calculated the cost of customer acquisition; meanwhile, we also know what it costs us to retain customers. Over time, we have learned an enormous amount, especially through monitoring in new markets and with the introduction of new business models.

Do you see a trend among your customers?
Perhaps the most important KPI-based analysis is breaking down customers into cohorts to fine-tune the targeting of marketing drives. Over the years, we have seen CLVs rising steadily across all our cohorts, even before Covid. Today, they are many times higher than the investments in customer acquisition and retention. This shows that our marketing measures, among them personalization, have a direct impact on the KPIs and thus on Delivery Hero's success.

Do you still see untapped potential in the way you use CLV?
A major challenge is responding directly to improvements in the KPIs with measures designed for pinpoint accuracy, especially in marketing, and then evaluating these with precision. That's something we are working on, aside from further refining our analytics and increasing their granularity to the level of geographical micro-cells.

With regard to the depth of evaluation, a distinction can be made between three levels. At the first level, only the average of all customers is considered, although this can already be very helpful when making decisions about expansion into new markets, channels or brands, for example. As a rule of thumb, expansion is advisable as soon as the estimated CLV exceeds the CAC by a multiple—even if profitability has not yet been reached. In practice, mature digital business models should display CLV-to-CAC ratios ranging between at least 2:1 and up to 8:1 or more. At this level, CLV can also be used as a metric to measure and improve the performance of organizational units such as country branches, or to gain a more customer-focused perspective on the business (rather than a purely sales- and profit-centric view).

The next analytical level focuses on cohorts of customers clustered on the basis of their CLV and CAC values in order to improve operational decisions in particular. Demographic data, such as gender, age, place of residence, but also behavioral data such as purchase frequency, brand loyalty, and returns are typically taken into account.

These data sets help marketing and sales teams identify indicators of high CLV and low CAC respectively, and tailor marketing campaigns to individual cohorts. Exhibit 2 illustrates an example of such a cohort analysis: in addition to the distribution of customers among the various CLV levels, it shows the characteristics of less lucrative and particularly valuable customers, as well as the recommended actions that can be derived from them.

Exhibit 2

Customer lifetime value (CLV) is fundamental for the elaboration of customer profiles and marketing measures.
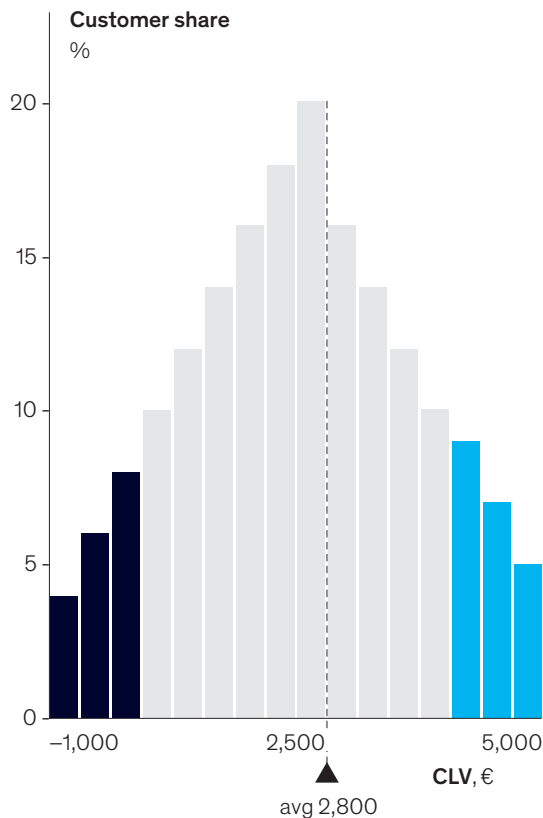

Low CLV

Illustrative consumers
• Aged 40 to 50
• €−500 to €150

Customer types
• One-off customer: Follow-up purchase unlikely
• Bargain hunter: Buys variety of brands when on offer

Actions
• Reduce short-term marketing investment
• Peform long-term monitoring and potentially reactivate with targeted campaigns

High CLV

Illustrative consumers
• Aged 25 to 35
• CLV > €3,500

Customer types
• Loyal customer: regular shopper in same channel, often in same brand
• Life event customer: large purchase volume within brief period (eg, home decor)

Actions
• Make personalized offers for follow-up purchases
• Reward loyalty through additional service offers
• Identify life events in advance by drawing on external data

Customer share %

avg 2,800

CLV, €

Source: McKinsey analysis

Finally, at the third level with maximum analytical depth, the model targets individual customers. However, this only makes sense if the company is operating advanced, automated marketing platforms. Otherwise, individual marketing efforts would be prohibitively expensive and the cost of acquiring and retaining customers would skyrocket.

In a nutshell, CLV offers both established and new players in the e-commerce space the opportunity to better understand, target, and serve their customers in order to engage them in an effective and efficient manner, and create value for them. However, the operationalization of CLV and CAC can also set in motion entirely new developments. For example, successful e-commerce companies are moving to build a network of physical stores to operate in tandem with their online business. Take, for instance, Mr. Spex, Europe's largest online eyewear retailer, which is opening more and more stores in German cities to attract new customers and create an omnichannel experience. A response to the rising cost of customer acquisition and retention in the online channel in recent years, this trend capitalizes on the fact that it is often cheaper and more efficient to strike the desired CLV-to-CAC ratio in conjunction with offline channels.

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