



Case Study

**Medical Aesthetics
Market Leader Drives \$1B
in Customer Lifetime
Value Using a Customer
Value Framework**





Summary

Client/Industry	Allergan Aesthetics/Medical Aesthetics
Project Type	CLV analysis of end consumers and health care providers (customers)
Data Size	Several million consumers with millions of transactions over 10+ years across consumers and healthcare providers
Objectives	<ul style="list-style-type: none">• Create CLV-based framework to help increase organization-wide understanding of the long-term value of consumers and health care provider customers• Provide insights into drivers behind behaviors of customer cohorts
Results	<ul style="list-style-type: none">• Drove an increase in customer lifetime value (CLV) of \$1B (the projected increase in revenue across the consumers' lifetime over a 10-year time horizon)• Identified one product line that drives 2X the customer lifetime value (CLV)• Redesigned CRM program around the insights, driving a 9% increase in patient retention relative to the prior year• Identified and activated consumer behavior insights within loyalty and broader go-to-market strategies, driving significant net profit benefit• Created different models of service, promotion, and value creation for customer cohorts using the CLV framework• Developed a greater understanding of the medical aesthetics business and how to intelligently drive growth by applying an analytically-based approach

Background

Research cited in Allergan Aesthetics *The Future of Aesthetics* report notes that the number of non-surgical aesthetic procedures grew by nearly two million between 2017 and 2020. That growth is expected to continue, with 23 million dermal fillers and 14.6 million body procedures predicted by 2025. And according to Fortune Business Insights, the global medical aesthetics market is projected to reach \$45.91 billion in 2029, at a CAGR of 12.2% during the forecast period of 2022-2029.

Unlike with therapeutic medicines, pharmaceutical companies that market medical aesthetics treatments don't deal directly with payers or with the broader complex healthcare system (e.g., benefit managers, healthcare plan providers, etc.). Instead, they sell directly to the medical providers (their customers) who administer the treatments to the end consumer. And patients interested in those services purchase them as elective services without requiring insurance company approval.

The medical aesthetics market itself is driven by numerous factors, including new technologies that have expanded the range of non-invasive treatments. It's also a market ripe for disruption. Allergan Aesthetics, an AbbVie company (NYSE: ABBV), has been building a high-performing team — **Allergan Data Labs** — to do just that.

Its mission: To transform the medical aesthetics business at Allergan Aesthetics.

Connecting with Theta

With backgrounds in performance marketing and data science, members of the Allergan Data Labs team were familiar with — and even big fans of — the academic work of Peter Fader, a professor of marketing at the University of Pennsylvania's Wharton School. In order to understand their customer base, they thought his work seemed a logical kind of reference point. After reviewing Fader's research and reading some of his papers on CLV, a team member emailed Fader on LinkedIn, thinking it would be a long shot to engage with him directly.

What that team member didn't know was that Fader was also co-founder of Theta, a predictive customer value analytics firm. That initial contact led to a consulting arrangement in which Theta would conduct a customer base analytics project on behalf of Allergan Aesthetics.



Situation

Allergan Aesthetics is currently a market leader in the medical aesthetics space, with its well-known neurotoxin and portfolio of injectables, implants, and other products. Because the company employs a B2B2C business model — selling its products to providers who then re-sell them to end consumers, it has traditionally focused heavily on the providers who resell its products.

However, due to steep competition in the non-surgical market segment, particularly among younger clients, Allergan Aesthetics acknowledged the need to forge stronger direct relationships with both end consumers and providers. This strategic shift would be crucial for maintaining its market position and sustaining market growth. Additionally, the current participation rate of consumers is low, so there is a large opportunity to capture more of the total addressable market. Healthcare providers are not always well-positioned to capture this market share through strategic acquisition programs, so Allergan Aesthetics is positioning itself to help drive this growth.

The company increased its investments in D2C advertising. It has also rebuilt its technology stack and created a robust new intelligent customer engagement architecture, enabling it to launch a new, highly customized loyalty program that leverages customer data and machine learning to intelligently engage consumers in more personalized, effective ways through its aesthetics platform, Allē.

Going forward, Allergan Aesthetics knows it is insufficient just to connect and engage with its customers. It must identify which consumer behaviors are most strongly associated with high lifetime value versus relatively low lifetime value, and orient commercial strategies towards what it is driving that higher value.



We wanted to present a way to think about this business, not just based on market size and share, but also in terms of the value of the individual consumers that we're reaching. What does it take to reach a consumer? How much is a consumer worth once we've reached them? And then what can we do to maximize their value over time?

SENIOR VICE PRESIDENT, ALLERGAN AESTHETICS &
CO-FOUNDER, ALLERGAN DATA LABS

The Need

Pharmaceutical companies frame their businesses around market size based on the incidence of disease or other conditions and calculate market share based on the number of customers that can be reached with the company's product(s). Medical aesthetics companies operate more like consumer beauty businesses, which drives a much different go-to-market strategy than a traditional pharmaceutical company.

The entire commercial team at Allergan Aesthetics saw the need to shift the way stakeholders throughout both AbbVie and Allergan Aesthetics thought about their business. They believed this would require helping those stakeholders better understand the value of individual consumers: what it takes to reach them, how much they're worth once they've been reached, and what can be done to maximize their value over time.

In simple terms, they wanted to build an analytical framework to help stakeholders throughout both Allergan Aesthetics and AbbVie understand customer lifetime value (CLV) and how it could be used to enhance Allergan Aesthetics' growth.

The Approach

The project was scoped out in two phases

Phase 1

Analysis of the company's current customer value and unit economics

A. Forward-looking customer value insights for existing customers, including:

- Aggregate customer lifetime value (CLV) and residual lifetime value (RLV)
- CLV evolution over time to identify key trends in customer value
- Segmented analysis of CLV to identify high-value groups and their value dynamics
- Analysis of CLV vs. customer acquisition costs (CAC) over time to estimate company's marketing ROI
- Distribution of CLV / RLV across customers to better understand customer acquisition and development potential
- Breakdown of CLV into the first and repeat/future purchases to better estimate customer value upside potential and its dynamics
- Individual estimates of CLV and RLV

B. Analysis of patient value by healthcare provider to show how different providers have better or worse portfolios of patients based on the patients' CLVs.

Historical summaries of customer behavior

- Historical customer acquisition trends
- Customer base evolution by recency
- Customer base breakdown by frequency
- Repeat vs first revenue analysis
- Average order value dynamics (with a breakdown into first and repeat purchase) evolution

Aggregated underlying data

Phase 2

The second phase included an analysis of healthcare providers, including historical and forward-looking views of current customer value, marketing ROI, and unit economics. This entailed building a separate healthcare provider-level CLV model that treated every provider as a separate customer to gain insight to the provider side of the market. The same deliverables as in Phase 1 (1A) were included.



Conducting the separate analysis on the two distinct customer groups of Allergan Aesthetics - the providers and the end consumers - was unique and insightful.

I commend their commercial team for having the strategic foresight to look at the business from a variety of perspectives and take a long-term view on how to create business value across the entire value chain.

Certainly any traditional B2B2C business can benefit from this type of analysis, but other less obvious business models, such as a restaurant chain working with its franchisees, for example, could use this type of analysis to understand the interplay between the different 'customers' in their ecosystem.

PETER FADER, MARKETING PROFESSOR, THE WHARTON SCHOOL,
UNIVERSITY OF PENNSYLVANIA

CO-FOUNDER, THETA

The Approach (continued)

Theta created **two distinct forward-looking CLV models** — one focused on analyzing providers and one looking at the behavior of the end consumer — to account for differences in their behavior, unique CLV, and long-term value to Allergan Aesthetics.

Each CLV framework consisted of **three state-of-the-art probability sub-models** of the underlying customer behavior:

- Churn
- Transaction frequency
- Transaction value

By integrating the predictions of these models, **CLV was calculated for every customer in the dataset**. The modeling process involved a **thorough analysis of both internal and external factors influencing customer behavior** and incorporated other segmentation data to provide as much clarity on drivers of value.

For the provider analysis, the team analyzed **nearly 7 million transactions made by 68,000 unique health care provider customers**. The consumer analysis entailed the examination of **34 million transactions completed by 6 million unique consumers**.

- Provider data used transaction-level information from customer invoices, including gross sales, returns, free goods, and discounts.
- End consumer data leveraged product quantities and net discount values at the order level in transaction logs with quantity-level Average Sales Price (ASP) and margin percentages provided for each product brand.
- For both customer categories, marketing spend was also analyzed and was split accordingly with amounts allocated for acquisition and retention.

Each model was rigorously **tested and validated to achieve high predictive accuracy**.

In addition to CLV analysis, Theta performed a **regression analysis** to gain a better understanding of how various consumer attributes impact CLV and to quantify this impact.

Variables included: consumer type, geography, discounts, product usage, and healthcare provider information.

As a result of this additional analysis, it was estimated how much each consumer characteristic impacts CLV, which products drive more value, and what types of healthcare providers generate more valuable consumers.

The Results

While the detailed results of both phases of the project are confidential, Allergan Aesthetics was pleased with the outcomes and the insights provided. Among the insights gained from the work:



Increased retention by 9% YOY

Redesigned CRM program around key insights, driving a 9% increase in patient retention relative to prior year.



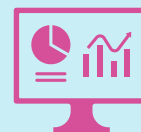
Increased Customer Lifetime Value

Drove an increase in customer lifetime value (CLV) of \$1B – the projected increase in revenue across the consumers' lifetime.



Determined product line impacts on CLV

Identified one product line that drives 2X the customer lifetime value (CLV).



Diverse value models for customers

Created diverse models of service, promotion and value creation for heterogeneous customer cohorts.



Intelligently driving growth

Gained a greater understanding of the medical aesthetics business and how to intelligently drive growth by applying an analytically-based approach.



Created Profit-Driving Strategies

Identified and activated consumer behavior insights within loyalty and broader go-to-market strategies, driving significant net profit benefit.



Our senior vice president of sales has been here 35 years. He has told me repeatedly this insight is a home run, and that it's the best kind of marketing data he's ever seen.

SENIOR VICE PRESIDENT, ALLERGAN AESTHETICS &
CO-FOUNDER, ALLERGAN DATA LABS

The Results (continued)

According to the leaders of the project, it was valuable to use CLV as an overarching framework to equip the organization to better understand the value of consumers over their lifetime, along with a well-quantified baseline.

For example, a significant insight that emerged from the project was the **criticality of a second treatment**. “This work is leading us to a deeper understanding of what drives high consumer lifetime value,” said the company’s AVP, Pricing, Analytics and Personalization. “It has sharpened our focus on retaining high-value end users, especially early in their journey with us. If you look at the retention curves of our end users, we typically lose people between their first and second appointment. But if we get someone using our products for a second time, that becomes the routine anchor. This is where we can focus our retention marketing efforts because if we can secure that second treatment, we have a strong shot at realizing a high lifetime value for a given consumer.”

The team also noted that the project **helped them better understand the different customer cohorts and the value creation within each group**. According to the co-founder of Allergan Data Lab, Theta gave Allergan Aesthetics a mathematical basis to define the different segments of our customers to understand their differentiated needs. From this, the team plans to work toward different models of service, pricing, and value creation for each cohort that's more customized to their needs – not only from a profitability standpoint for the company but also from a value creation standpoint from the customers’ view.

Another critical insight was the **importance of product choice**. “We would never have imagined that product choice would have such a major impact on lifetime value,” stated the AVP, Pricing, Analytics and Personalization. Finding out that one of our brands increases patient CLV by 2x is remarkable.”



This work helps extend the time horizon of the analysis rather than just looking at a quarter-to-quarter snapshot of the P&L, which you might have a handle on now but doesn't tell you anything about the overall health of your customer base.

Theta provides insights that can be a powerful tool for businesspeople to operate their business in a much more sustainable, healthy way beyond one quarter.

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For more information on
using CLV in your business
strategy, email us, follow us,
or schedule a meeting.



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