

Customer Lifetime Value for SAS (Scandinavian Airlines)



MBA Course Modern Marketing
Assignment – CLV Analysis

SAS Operations & CLV Optimization

- Traditional model: hub-and-spoke, business travel focus, with EuroBonus loyalty program
- SAS switched flight alliance in 2024, from StarAlliance to SkyTeam with broader connectivity & benefits
- The last years, SAS has focused on stronger EuroBonus integration (making it easier or more attractive for members to earn and redeem points across more services, partners and flights), which is expected to lead to higher retention
- The company has increased its hub focus on CPH resulting in better connectivity & yields
- SAS filed for Chapter 11-style restructuring in the U.S. in 2023, and the plan was approved by the courts in March 2024
- After Chapter 11, SAS has cut inefficiencies and optimized operations. This reduced the cost of serving each passenger, increasing profitability and customer lifetime value.

CLV Hypothesis

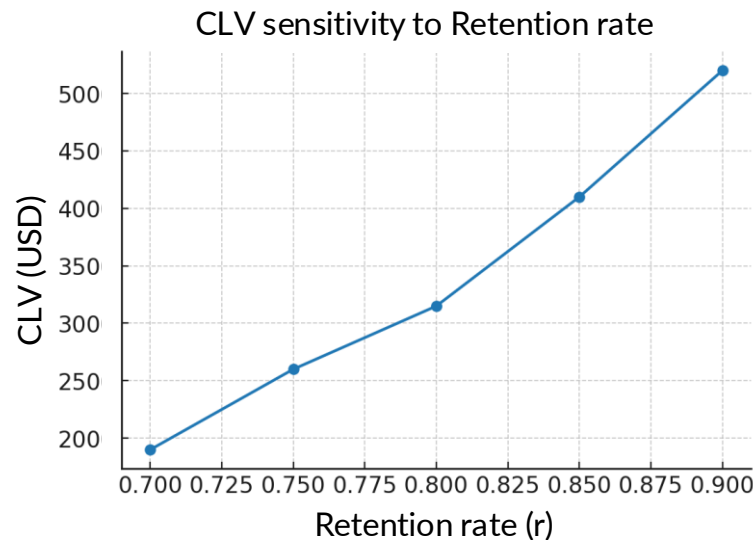
- SAS has a service-centric view: customer equity is the company's key asset
- Customer loyalty is important, with customers are segmented in non-Eurobonus members and Eurobonus members in tiers Basic, Silver, Gold, Diamond. In addition SAS has Eurobonus Pandion, an exclusive, invitation-only loyalty tier for ultra-high-value members
- Profitable customers receive superior service & loyalty perks such as fast-track at the airport, extra baggage allowance, free lounge access, priority boarding etc.
- Retention & service quality directly drive long-term value
- $CLV = NPV \text{ of revenues} - (\text{acquisition} + \text{service costs})$
- Discount rate in the airlines industry is 10–20% (cost of capital & risk)

Methodology and assumptions to estimate CLV

- Inputs: purchase frequency, contribution margin, retention rate, discount rate, CAC
- The following assumptions are made for the CLV calculations:
 - EuroBonus Silver member: 3 round trips, i.e. 6 flights/year, ticket revenue minus variable costs, i.e. margin/flight is USD 25, giving annual margin of USD 150
 - Retention (i.e. probability of flying SAS next year): 80%
 - Discount rate: 12%
 - CAC: USD 60
- Steady-state formula, assumes the customer could stay indefinitely:
$$CLV = (m \times r) / (1 + i - r) - CAC$$
- Finite-horizon formula, sums profits over a fixed number of years:
$$CLV = \sum (m \times r^{(t-1)}) / (1+i)^t - CAC$$
- Calibration, data sources and adjustments used to make CLV estimate realistic: SAS traffic data, yields, loyalty churn, marketing CAC

CLV Estimate, steady state formula

- $CLV = (m \times r) / (1 + i - r) - CAC = (150 \times 0.8) / (1 + 0.12 - 0.8) - 60$
- **Result: CLV = USD 315**
- Sensitivity: r 70% is USD 190, r 85% is USD 410, i 20% is USD 240



- Managerial implication: retention is the key driver of CLV
- Decision-making implication: SAS should focus investments (Eurobonus loyalty program, premium services etc) to retain high-value customers because even a few percentage points of higher retention significantly raise CLV

CLV Estimate, finite-horizon formula

- $\sum (m \times r^{(t-1)}) / (1+i)^t - CAC$
- The same assumptions are used, with the addition of a 5 year horizon

| Year | Margin × Retention ⁿ⁻¹ (USD) | Discount Factor (1.12 ^t) | Discounted Margin (USD) | Cumulative CLV (USD) |
|--------------|---|--------------------------------------|-------------------------|----------------------|
| 1 | 150 | 1.12 | 133.93 | 133.93 |
| 2 | 120 | 1.2544 | 95.63 | 229.56 |
| 3 | 96 | 1.4049 | 68.36 | 297.92 |
| 4 | 76.8 | 1.5735 | 48.8 | 346.72 |
| 5 | 61.44 | 1.7623 | 34.87 | 381.59 |
| Subtract CAC | - | - | - | 321.59 |

- **Result: CLV = USD 321.59**
- Managerial implication: retention in the early years of the finite horizon is the key driver of CLV. Losing a customer early drastically reduces the total value over the 5-year period.
- Decision-making implication: SAS should focus investments (EuroBonus loyalty program, premium services etc) on retaining high-value customers within the finite horizon. Even a few percentage points improvement in retention during these first years significantly increases net CLV over the 5-year period.

Conclusions

- With the used assumptions, both formulas used provide similar CLVs;
USD 315 using steady state formula and USD 321.59 using the finite-horizon formula
- Retention and discounting dominate CLV: the main drivers of CLV are retention rate and profit margin per period, rather than the theoretical “infinite” horizon
- Both formulas tell the same story, i.e. SAS should focus on retaining profitable customers and optimizing costs, because the first several years already capture most of the CLV

References

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