Executive summary

The model projects recurring revenue growth driven by new client acquisitions funded from Sales & Marketing (S&M) budgets that are sized as 50% of remaining profit after Cost of Sales (COS) and Operations. Unit economics are strong: **CAC = 800**, **Client annual value = 10,000**. However, a material working-capital timing mismatch exists because new clients pay a lump sum 4 months after acquisition while the business incurs COS and operations cash outflows immediately. For each new client, the business must fund approx. **2,967** of cash before the client payment arrives — so rapid acquisition without adequate reserve will quickly strain cash.

Assumptions

Base MRR (recurring): **50,000 / month** (baseline; new-client revenue is added on top).

- Client value: **10,000 / year**, recognized equally over 12 months → **833.33 / month / client**.
- Revenue Recognition: New client revenue begins in the month of acquisition and is recognized evenly for the next 12 months.
- Client payment: full **10,000** received **4 months after acquisition** (cash).
- Cost of sales (COS): **30% of revenue**.
- Operations cost: **50% of (Revenue − COS)**.
- Planned S&M: **50% of remaining profit** after COS & operations (but actual S&M spent is limited by cash and must be a multiple of **800** per client).
- CAC (cost to win) = **800 / client**.
- Starting cash (example used in model) = **100,000**, required minimum cash balance = **100,000** (model enforces not dropping below this).

Key numeric unit economics (per new client — exact)

- Monthly recognized revenue per client = 10,000 / 12 = **833.33**.
- COS per client per month = 30% × 833.33 = **250.00**.
- Revenue minus COS per client = **583.33**.
- Operations cost (50% of that) = **291.67**.
- Remaining before S&M = **291.67**.
- Planned S&M (50% of remaining) = **145.83**.
- Net accrual profit per client per month (after planned S&M) = **145.83**.
- Net accrual profit per client per year = 12 × 145.83 = **1,750.00**.
- LTV / CAC = 10,000 / 800 = **12.5** (very attractive).
- Net accrual ROI: annual net accrual profit (1,750) vs CAC (800) → positive (≈2.19× in the first year).

Crucial working-capital insight (timing mismatch)

Although unit economics are strong, the **timing** of cash flows creates a working-capital requirement:

- For each newly acquired client you spend **800** (CAC) at acquisition.
- You also pay COS + Ops associated with that client **each month** as you recognize revenue (cash outflows), even though the client's cash arrives only after 4 months.
- COS + Ops per client per month = 250 + 291.67 = **541.67**.
- For the 4 months before payment arrives, cumulative COS+Ops = 4 × 541.67 = **2,166.67**.
- Add CAC paid at acquisition (800) → total cash that must be funded before the payment = **2,966.67** (≈ **2,967**).
- At month +4 you receive **10,000** and the working capital pressure is relieved, but you need to have financed ~**2,967** per new client in the meantime.

Bottom line: each new client requires ~**2,967** of short-term cash until collection at month+4. If you acquire many clients quickly, required working capital scales linearly.

Model findings & trends (what the simulation shows)

1. **Revenue growth is compounding.** As new clients are acquired, recognized revenue grows month-over-month due to the 12-month recognition schedule. Growth accelerates when S&M spend converts steadily to new clients.
2. **S&M spending is self-financing but gated by cash.** Planned S&M (50% of remaining) often exceeds what cash allows. The model only spends what can be funded without breaching the minimum cash balance. This naturally paces growth — good for safety, but slows customer acquisition.
3. **Cash balance dynamics are lumpy.** Because client payments come in 4-month lumps, cash balance can spike when several clients' lump payments arrive in the same month, and fall in preceding months as COS/ops are paid. This makes month-to-month cash volatile.
4. **Profitability (accrual) is positive per client.** After COS, ops, and planned S&M, each client still contributes ~**1,750** annual net profit (accrual), so the business is profitable on an accrual basis.
5. **Working capital is the binding constraint for scaling.** With a fixed starting cash and a requirement to keep at least **100,000** in the bank, the speed of acquisition is limited by available working capital rather than by attractive unit economics.

Practical implications for the client

- **Good news:** Unit economics are healthy — each client pays far more than it costs to acquire, and accrual profits are positive.
- **Caution:** Rapid growth without financing will cause cash strain. The cash required to fund new clients before their payments arrive (~**2,967** per client) must be available or financed.
- **Growth strategy tradeoff:** You can (A) grow conservatively (let S&M convert slowly, self-funded), (B) finance growth (e.g., working-capital loan or advance), or (C) change commercial terms (e.g., monthly billing or partial upfront payment) to smooth cash.

Recommendations (actionable)

1. **Maintain a working-capital buffer** sized to expected monthly net new clients.
   - Example: If you plan to acquire 50 new clients in a month, you'll need ~50 × 2,967 ≈ **148,350** additional working capital.
2. **Smooth billing or collect partial upfront payments.** If you can shift even a portion of the 10,000 to upfront or monthly billing, the working-capital drain reduces significantly.
3. **Reinvest lump-sum receipts into acquisition.** When lump payments arrive, automatically allocate a portion to a growth fund so you can keep acquisitions steady without hitting the minimum cash floor.
4. **Run scenario/sensitivity analysis for:** (a) payment delay (e.g., 2 vs 4 months), (b) CAC increase, (c) variation in base MRR, (d) minimum cash threshold. Use these to set safe acquisition pace targets.
5. **Use short-term credit** (overdraft or working capital line) sized to cover 1–2 months of expected new-client working capital if you want to accelerate growth immediately.
6. **Track these KPIs monthly:** MRR, New Clients, Total Clients, CAC, LTV/CAC, Cash Balance, AR from new clients (expected payments by month), Payback period (cash & accrual), and Burn/Surplus from operations.

Risks & mitigations

- **Risk: Payment delays lengthen (> 4 months).** Mitigation: negotiate earlier payouts, monthly payments, or use invoice-factoring.
- **Risk: CAC rises.** Mitigation: track channels by cost and ROI; optimize conversion funnels.
- **Risk: Churn / client lifetime < 12 months.** Mitigation: monitor retention closely; if average lifetime falls, LTV/CAC will deteriorate — re-evaluate CAC.

- **Risk: Large lump payments cause one-time cash spikes that mask underlying monthly weakness.** Mitigation: analyze cash excluding lumps to see sustainable cash generation.