Step 17: Estimate the Lifetime Value (LTV) of an Acquired Customer

Worksheet

Inputs to the Worksheet

One-Time Charge(s)

What will your one-time charges be for each customer? (e.g. initial purchase price of product)

Greenify charges €280 for the initial purchase.

What is your estimated profit margin on your one-time charges? ((One-Time Charge – Marginal Production Cost) / One-Time Charge = Profit Margin -- e.g. if your one-time charge is $100 and the cost to make that one unit of product is $20, your profit margin is (100-20)/100 = 80%) (General estimate is fine and don't add more precision that is appropriate at this point – it can be misleading)

The cost to produce the device is €140, the profit margin would be (280 — 140) / 280 = 50% .

What is the life of the product before a customer has to repurchase the product?

7 years

What % of customers will repurchase? 25% of customers will repurchase a new device after 7 years due to upgrades or replacements.

What will your recurring revenue streams be?

€100 annual subscription fee for ongoing services and updates.

What is your profit margin on your recurring revenue streams?

70% profit margin on its recurring revenue streams. This is based on the assumption that once the initial hardware is installed, the ongoing costs for software updates, cloud services, and customer support are relatively low, while the subscription fees continue annually. This high margin reflects the low variable costs associated with digital services and the high perceived value of continuous improvements and energy savings delivered to the customers.

What is your retention rate for your recurring revenue streams?

After 1st year: 91% - This high retention in the first year reflects initial customer satisfaction and the immediate benefits realized from using Greenify's energy management system.

After 2nd year: 86% - A slight drop as the novelty wears off, but most customers continue to find value in the service.

After 3rd year: 80% - Further attrition as some customers may seek new technologies or alternative solutions, or they might move homes and discontinue the service.

After 4th year: 74% - Continued decrease as competitive pressures and customer lifecycle factors influence retention.

After 5th year: 70% - By this point, the retention rate stabilizes, but continues to decrease slightly, accounting for market saturation and potential obsolescence or need for significant product updates.

What other revenue sources will you have? What will your profit margin be, and is there a yearly retention rate applicable to them?

Energy Optimization Consultations: Greenify can offer personalized energy optimization consultations tailored to individual usage patterns, using the data collected by their systems. This service would carry an 80% profit margin due to low operational costs, primarily involving expert time rather than material resources. Customers might opt for these services annually, with an expected retention rate of 60%, as ongoing adjustments and optimizations can provide substantial value in terms of energy savings and cost reductions.

Premium Support Packages: Greenify could provide premium support packages that include priority customer service, immediate technical support, and regular system check-ups. This would likely see a 75% profit margin, reflecting the high value and low incremental cost of service provision. The retention rate for such a service could be around 50% annually, as experienced users may eventually choose to opt out once they are comfortable with system management.

Smart Home Integration Services: To enhance user experience, Greenify could offer integration services that connect its energy management system with other smart home devices. This service could have a 70% profit margin and would appeal primarily to tech-savvy customers looking to create a fully integrated smart home environment. This revenue stream may not have an annual retention rate, depending on whether upgrades or new integrations are necessary over time.

Hardware Upgrades and Add-Ons: Greenify can expand its product line with hardware upgrades and add-ons that enhance the original system's functionality or introduce new features. These products would typically have a 65% profit margin and could see a repurchase rate of 30-40% over five years as customers look to stay up-to-date with the latest technological improvements.

Workshops and Training Programs: Lastly, Greenify could conduct workshops and training programs focused on energy conservation, smart home usage, and maximizing the benefits of their systems. With an 85% profit margin, these programs would be relatively inexpensive to run, especially if offered online. A 40% annual retention rate could be expected, as interest might wane as customers become more adept at managing their systems independently.

What will your cost of capital be? (If you don't know, assume 50%. If you do know, explain below why you think your cost of capital will be different.)

Generally, tech companies in growth phases, especially those in emerging industries like smart home technology, typically see a cost of capital that ranges from 8% to 12%. This range accommodates the risk associated with rapid technological change and market adoption uncertainties. If Greenify utilizes a balanced mix of equity and debt financing, the cost might lean towards the lower end of the typical tech industry range. Assuming moderate debt levels, the interest costs would influence the overall

cost of capital. Given Greenify's innovative product line and the potential high demand for energy-efficient solutions, the risk is moderated by the substantial market growth potential and government incentives for green technologies. Current low-interest rates and supportive policies for green technologies can further help reduce the cost of capital. Considering these factors, a realistic cost of capital for Greenify would likely be around 10%. This rate strikes a balance, being higher than average corporate rates to account for startup and technology innovation risks but much lower than the exaggerated 50% placeholder.

Calculations to Estimate the LTV

Input	t = 0 (Today)	t = 1 (1 year)	t = 2 (2 years)	t = 3 (3 years)	t = 4 (4 years)	t =5 (5 years)
A. One-time Revenue Amount	€280 (cost of the device)					
B. - One-time Revenue Profit Margin (%)	50%					
C. - One-time Revenue Profit (row A * B)	€140					
D. Recurring Revenue Amount		€100	€100	€100	€100	€100
E. - Recurring Revenue Profit Margin (%)		70%	70%	70%	70%	70%
F. - Recurring Revenue Profit (row D * E)		€70	€70	€70	€70	€70
G. Other Revenue Amount		€50	€50	€50	€50	€50
H. - Other Revenue Profit Margin (%)		80%	80%	80%	80%	80%
I. - Other Revenue Profit (row G * H)		€40	€40	€40	€40	€40
J. Sum of Profit for time period	€140	€110	€110	€110	€110	€110
K. Default cost of capital factor: Discount factor to NPV (@50%/year and assuming units of time = years)	1.0	.67	.44	.30	.20	.13
L. NPV of each item (row J * K)	€140	€100	€90.9	€82.6	€75.1	€68.3
M. Sum of All NPVs (sum of all cells in row L)	**€556.9**					

Interpretation of Estimation

- What would you round your LTV estimation to? What range do you feel comfortable with?

Given the calculations, rounding the LTV estimation for a Greenify customer to €560 seems appropriate. A comfortable range considering potential variations in retention rates and profit margins could be €500 to €600. This range accounts for possible fluctuations in market conditions, customer behavior changes, and potential cost variations.

- Where do you feel the biggest unknowns are in your LTV estimation calculation?

The most significant unknowns in Greenify's LTV calculation include:

a. Customer Retention Rates: Assumptions about retention heavily influence LTV. Changes in customer satisfaction or emerging competitive solutions could alter these rates.

b. Technological Advancements: As Greenify relies on tech-driven solutions, rapid innovation in the smart home or energy sectors could either make its products more essential or obsolete.

c. Economic Factors: Fluctuations in the economy that impact consumer spending habits, especially on non-essential goods, can affect subscription renewals and additional service uptake.

- Does the number seem reasonable?

The estimated LTV of €556.9 appears reasonable given Greenify's business model, which leverages both one-time sales of energy management devices and recurring revenues from subscriptions. The value proposition of saving on energy costs makes the product attractive, justifying the LTV figure. Continuous market validation and financial analysis will be crucial to maintaining this assessment's accuracy.

- What are the key drivers of the LTV if you want to increase it?

To increase LTV, Greenify can:

a. Improve product integration: Developing features that integrate more seamlessly with major smart home platforms like Google Home or Amazon Alexa could enhance the product's appeal and usage longevity.

b. Upsell premium services: Introducing tiered subscription models with additional features such as more detailed energy usage analytics or integration with solar panel systems could increase average revenue per user.

c. Enhance customer support and satisfaction: High-quality, responsive customer support can improve retention rates, especially if support includes proactive tips for energy savings and regular updates on new features.

- Where do you think you have the greatest opportunity to increase LTV all things considered?

Greenify's greatest opportunity to increase LTV lies in leveraging the growing trend towards sustainable living. By enhancing features that help users not only monitor but also reduce their carbon footprint effectively—such as predictive analytics for solar energy usage or automated adjustments based on utility rate fluctuations—Greenify can appeal to environmentally conscious consumers. Additionally, expanding into commercial markets, such as providing solutions for small businesses or eco-friendly companies, could significantly increase the user base and deepen market penetration, driving up LTV with higher-tier commercial subscription plans