Combine Sentiment and Financials to Quantify the Value of
client experience

A PAIR OF FOUR-YEAR CASE STUDIES

(AND A LOT OF MATH. RUN WHILE YOU CAN)

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Purpose

Identify the impact of positive client experiences (CX) and build an ROI for CX investment

Add sentiment (CX metrics) to segment analysis to drive growth with sustainable, high-margin clients

Improve Go/No-Go decision-making when pursuing projects and clients

Client Lifetime Value (CLV)

THE VALUE, TODAY, OF ALL FUTURE PROFIT A CLIENT GENERATES

The Factors

Revenue

Profit Margin

Retention Rate

Discount Rate

Sentiment

Definition:
Retention Rate

TRACKING LOSS OF ACCOUNTS AND REVENUE

"85% of our work is repeat business."

Repeat business rate is NOT retention rate.

You could have 100% repeat business and a high churn rate.

You could even have increasing revenue.

Imagine you bring on no new clients, 90% of your clients increase spend 20%, and 10% of your clients leave.

Churn is a much more predictive indicator than repeat business rate.

Retention (Churn) Rates:

What percentage of existing clients do not transact business with you the next year?

Basic Concept of Churn:

- A portfolio of 100 clients this year, where 95 continue doing business next year would be a 5% churn.
- Retention is simply the inverse of Churn

Goal is always 0% churn, but that is not possible (especially when dealing with smaller agencies with periodic capital programs)

Growth
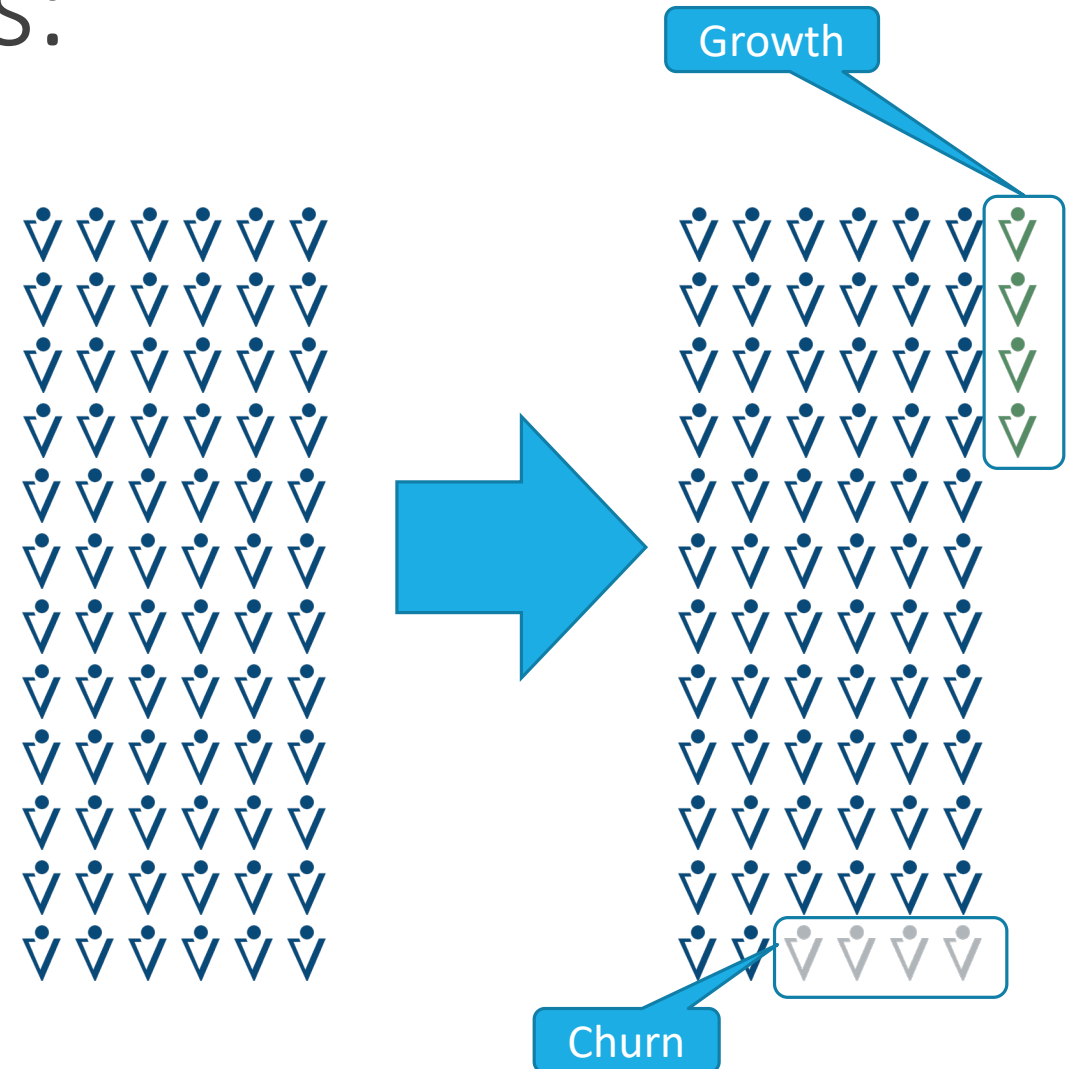
Churn

Basic Concept Calculation: $Churn = \dfrac{Customers\ Lost}{Total\ Customers}$

Caution: When are we measuring customers lost? At what point do we count our total customers? In order to make this work we need to measure churn for a specific time window. As a result, churn can be measured by month:

Refined: $Churn\ (month) = \dfrac{Customer\ Lost\ (month)}{Total\ Customers\ (month)}$

Caution: How do we define Total Customers? If we add customers during the month, should we count them? They won't have had a chance to churn in their first month so that might skew our metric. To address this, churn is calculated only on customers who started the month as customers:

Refined: $Churn\ (month) = \dfrac{Customers\ Lost\ (month)}{Total\ Customers\ (first\ of\ the\ month)}$

Not all clients are created equal.

Recommendation: Churn can be calculated by more than just client attrition. Consider Gross Revenue Quit or Net Revenue Churn. Consider which method makes the most sense for your CLV.

For our CLV purposes, we start with revenues segmented by client and paired with sentiment across the time period of the data provided and utilize their Annual Gross Revenues Quit.

Lets take a quick look at how and why that's a good starting point.

Project Type	Client	Sentiment	Revenue Year 1	Revenue Year 2	Churn
Education	Client 1	Passive	30,578	214,438	-
Medical	Client 2	Passive	88,539	53,123	35,146
Residential	Client 3	Passive	132,941	113,000	19,941
Residential	Client 4	Promoter	98,323	382,457	-
Residential	Client 5	Promoter	124,218	162,536	-
Medical	Client 6	Detractor	140,253	-	140,253
Residential	Client 7	Promoter	70,534	71,945	-
Medical	Client 8	Detractor	218,839	74,405	144,434
Education	Client 9	Detractor	150,567	58,721	91,846
Education	Client 10	Passive	103,684	146,194	-
			1,158,476	1,276,819	431,620

Revenue Growth of 10.2%

Gross Revenue Quit 37.2% ($431k / $1,158k)

Revenue Retention 62.8%

Project Type	Client	Sentiment	Revenue Year 1	Revenue Year 2	Churn
Education	Client 1	Passive	30,578	214,438	-
Medical	Client 2	Passive	88,539	53,123	35,146
Residential	Client 3	Passive	132,941	113,000	19,941
Residential	Client 4	Promoter	98,323	382,457	-
Residential	Client 5	Promoter	124,218	162,536	-
Medical	Client 6	Detractor	140,253	-	140,253
Residential	Client 7	Promoter	70,534	71,945	-
Medical	Client 8	Detractor	218,839	74,405	144,434
Education	Client 9	Detractor	150,567	58,721	91,846
Education	Client 10	Passive	103,684	146,194	-
			1,158,476	1,276,819	431,620

Observe:
GRQ for Promoters = 0% (100% Retention)
GRQ for Detractors = 73.8% (26.2% Retention)

Assess GRQ by all segments
(project type, client type, etc.)

Calculating a Lifetime

By utilizing Churn you can calculate a clients Average Expected Lifetime

$$\text{Average Lifetime} = \frac{1}{\text{Churn \%}}$$

Customer Retention Rate (% pa)	Customer Churn Rate (% pa)	Average Customer Lifetime (in Years)
5%	95%	1.05
10%	90%	1.11
15%	85%	1.18
20%	80%	1.25
25%	75%	1.33
30%	70%	1.43
35%	65%	1.54
40%	60%	1.67
45%	55%	1.82
50%	50%	2.00
55%	45%	2.22
60%	40%	2.50
65%	35%	2.86
70%	30%	3.33
75%	25%	4.00
80%	20%	5.00
85%	15%	6.67
90%	10%	10.00
95%	5%	20.00
100%	0%	Ongoing

Churn Continued:

Caution: Beware the impact of high Retention Rates on the CLV results. Like compounding interest, much of the "magic" of CLV lies in the time aspect of the equation. As a result, using under-aggressive churn rates can have a major impact and skew the data beyond reality.

Recommendation: Use conservatism when calculating your Retention Rate and limit the iteration of your predictive analytics.

LTV by Retention Rate
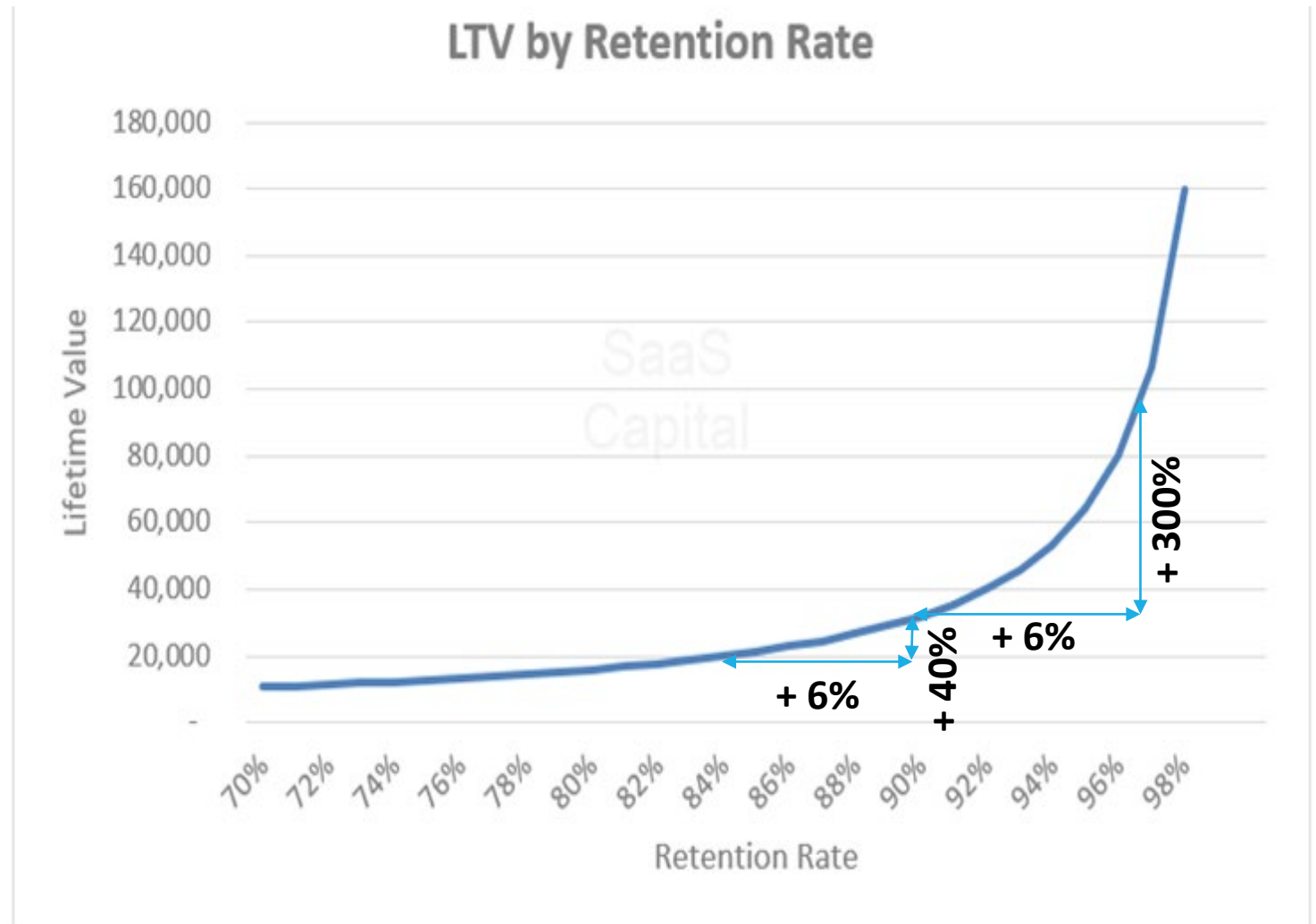
Definition:
Discount Rate

THE FUTURE VALUE OF MONEY

Net Present Value (discount rate)

Would you rather have $95 today

or $100 a year from now?

Would you rather have $10 today

or $100 a year from now?

Why Discount Future Value?

Inflation

$100 today is worth $97 in one year @ 3% inflation

Opportunity Cost

$100 today is worth $105 in one year @ 5% interest

Length of Time

$100 today invested at 5% over 10 years is $163

Uncertainty & Risk

market conditions may remove ability to pay in a year

NPV to Discount Rate

Factoring the present value of money requires a "discount rate" for future money.

Common discount rate for future cash flows of an established professional services business is

10%

Discount rates are used in business valuations as standard practice

Example: $200M lotto winner takes $100M payout today instead of $10M/year for 20 years

Assembling Variables
CLV Formula

PUTTING IT ALL TOGETHER

How it's done

$$\text{CLV} = \text{GC} \cdot \sum_{i=1}^{n} \frac{r^i}{(1+d)^i} - \text{M} \cdot \sum_{i=1}^{n} \frac{r^{i-1}}{(1+d)^{i-0.5}}$$

The simpler, less accurate method

$$\text{CLV} = \frac{\text{Retention Rate} \times \text{Net Profit}}{(1 + \text{Discount Rate}) - \text{Retention Rate}}$$

The rule of thumb

$0.63 CLV per $1.00 of Revenue

@ 15% Net Profit, 85% Retention, 10% Discount Rate

Segment Revenue (Annual)	$1,234,567		Segment:			
Clients in Segment	17		$ 46,354	**Average CLV**		
Annual Fees per Client	$72,622					
Discount Rate	10.0%		$ 0.64	CLV / $1 Revenue		
Segment Margin	15.0%					
Segment Retention	85.0%					

	Churn Adjusted Revenue	NPV Discount Rate	Expected Revenue in NPV	Expected Profit in NPV	CLV (Accrued Expected Profit in NPV)
Year 1	$ 72,622	0%	$ 72,622	$ 10,893	$ 10,893
Year 2	$ 61,728	10%	$ 55,556	$ 8,333	$ 19,227
Year 3	$ 52,469	19%	$ 42,500	$ 6,375	$ 25,602
Year 4	$ 44,599	27%	$ 32,512	$ 4,877	$ 30,478
Year 5	$ 37,909	34%	$ 24,872	$ 3,731	$ 34,209
Year 6	$ 32,223	41%	$ 19,027	$ 2,854	$ 37,063
Year 7	$ 27,389	47%	$ 14,556	$ 2,183	$ 39,247
Year 8	$ 23,281	52%	$ 11,135	$ 1,670	$ 40,917
Year 9	$ 19,789	57%	$ 8,518	$ 1,278	$ 42,195
Year 10	$ 16,820	61%	$ 6,517	$ 977	$ 43,172
Year 11	$ 14,297	65%	$ 4,985	$ 748	$ 43,920
Year 12	$ 12,153	69%	$ 3,814	$ 572	$ 44,492
Year 13	$ 10,330	72%	$ 2,917	$ 438	$ 44,930
Year 14	$ 8,780	75%	$ 2,232	$ 335	$ 45,264
Year 15	$ 7,463	77%	$ 1,707	$ 256	$ 45,521
Year 16	$ 6,344	79%	$ 1,306	$ 196	$ 45,716
Year 17	$ 5,392	81%	$ 999	$ 150	$ 45,866
Year 18	$ 4,583	83%	$ 764	$ 115	$ 45,981
Year 19	$ 3,896	85%	$ 585	$ 88	$ 46,069
Year 20	$ 3,312	86%	$ 447	$ 67	$ 46,136
Year 21	$ 2,815	88%	$ 342	$ 51	$ 46,187
Year 22	$ 2,393	89%	$ 262	$ 39	$ 46,226
Year 23	$ 2,034	90%	$ 200	$ 30	$ 46,256

Case Study #1

QUANTIFYING THE ROI FOR A CX INITIATIVE

Methods and History

327 client sample

$68M Annual Revenue Sample

Net Promoter System (NPS) Scores + Revenue & Profit

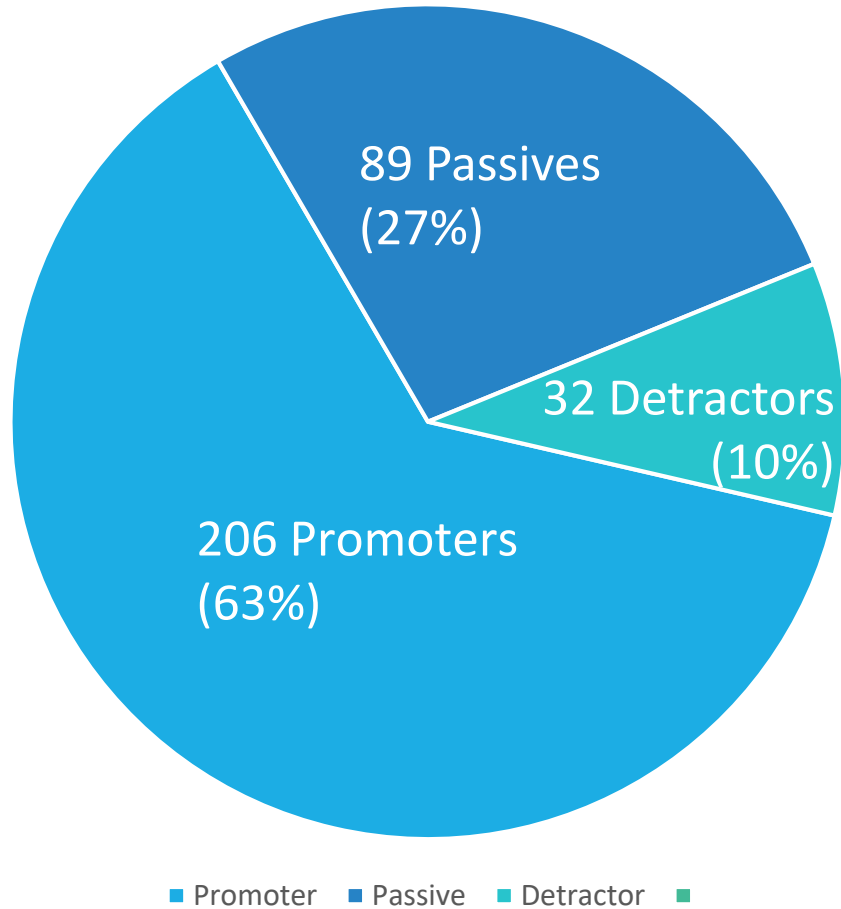NPS = 53 (Client Savvy average client = 67 in sample period)

NPS scores likely optimistic due to PM selection bias

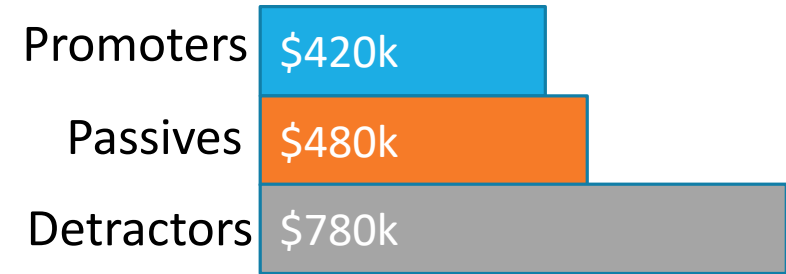*Customer lifetime value ($)* = Margin ($) * (Retention Rate (%) ÷ ([1 + Discount Rate (%)] - Retention Rate (%)))[2]
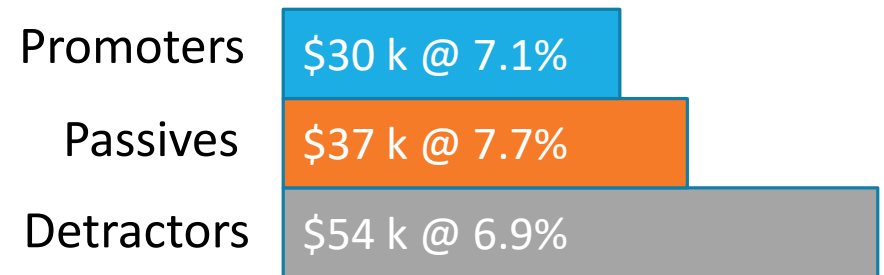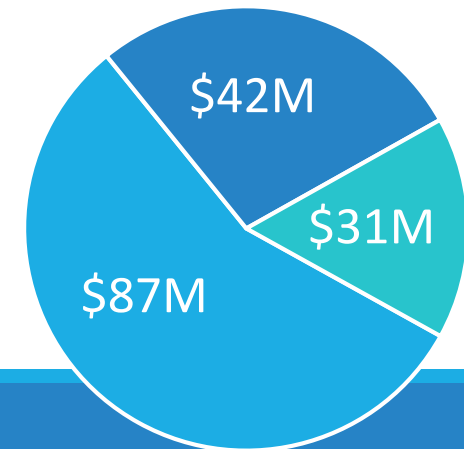
The Data (2015 – 2018)

Net Promoter Distribution

89 Passives (27%)

32 Detractors (10%)

206 Promoters (63%)

■ Promoter ■ Passive ■ Detractor ■

Average Revenue Per Client

Promoters	$420k
Passives	$480k
Detractors	$780k

Average Profit Per Client

Promoters	$30 k @ 7.1%
Passives	$37 k @ 7.7%
Detractors	$54 k @ 6.9%

Total Revenue By Type

$42M

$31M

$87M

Client Lifetime Value – Analysis
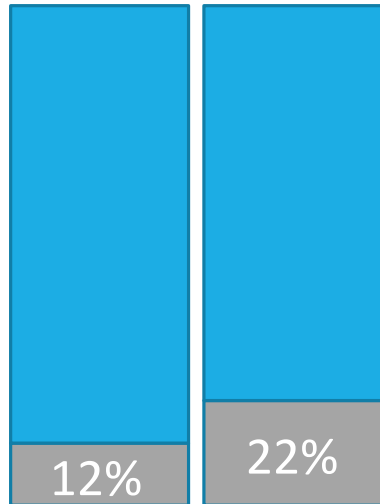
Revenue Sold to
Detractors (2015 vs 2017)

12% 22%

+83%

Revenue Churn

7.6% 13.6%
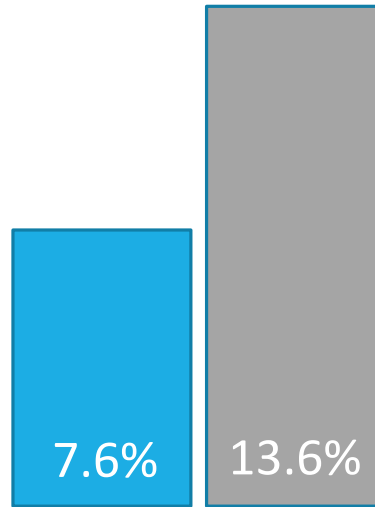
+92%

Profit:
7.1% vs 6.9% **(+3%)**

Lifetime:
16 vs 13 years **(+23%)**

Churn (#):
3% vs 16% **(+433%)**

Client Lifetime Value – Current Trends

$1.9 MM
Expected Detractor Churn for 2018

$137K
Expected Detractor Profit Loss for 2018

(5 clients lost)

Current Rate:
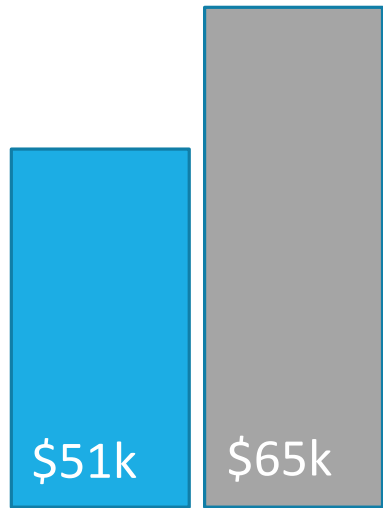$163k/mo in churn ($11k profit erosion)

$14 MM
Revenue at Risk

$610k CLV will be lost at current rate

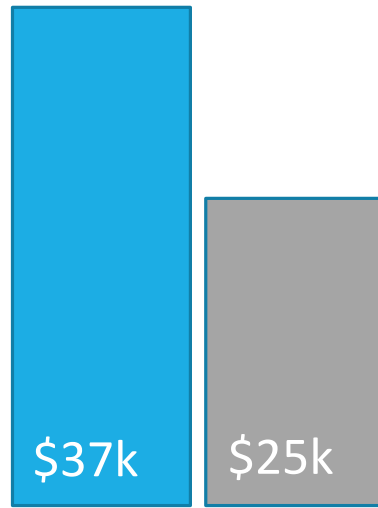Converting a detractor to promoter creates $28k in CLV

Client Lifetime Value – Analysis

$51k $65k

Client Lifetime Value

-27%

$37k $25k

**Normalized CLV
Per $100,000**

+45%

Profit Efficiency:
Detractors require 84% more resources to generate 27% more CLV

Conversion:
$100k Converted = **$11.4k CLV**

Client Lifetime Value – The Opportunity

$610k in CLV will be lost at current rate

$660k in CLV will be gained by converting 40% of detractors

**$1.27M in total CLV Opportunity
(1.8% of annual revenue)**

Client Lifetime Value – The Soft Factors

Loss of Brand & Reputation

Loss of references and referrals

Cost of Staff Replacement

Cost of Revenue Replacement

Possible Interpretations

Underpricing high-value contracts (misaligned incentives)

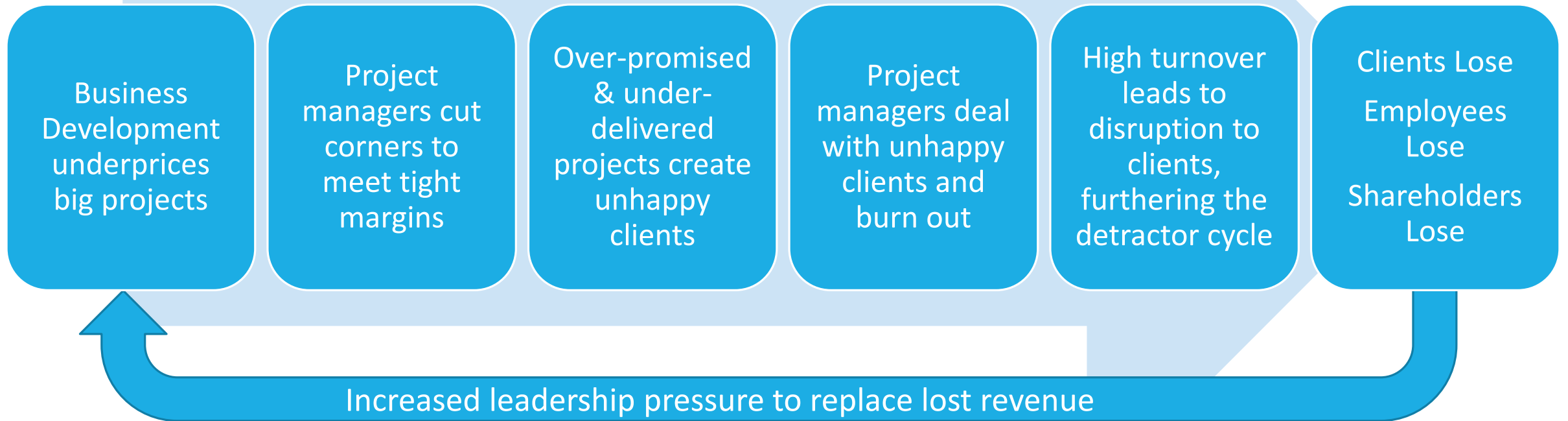"Best" clients getting unnecessary discounts, no change order, or overdelivery

Project delivery not realizing economies of scale on larger projects

Discontent lies deeper in organization (thus only measured for larger projects)

"Cost-Plus" pricing prevents premium margins with promoters

Failure to leverage "sole source" position for improved margins

Client Lifetime Value – Breaking the Cycle

Business Development underprices big projects

Project managers cut corners to meet tight margins

Over-promised & under-delivered projects create unhappy clients

Project managers deal with unhappy clients and burn out

High turnover leads to disruption to clients, furthering the detractor cycle

Clients Lose
Employees Lose
Shareholders Lose

Increased leadership pressure to replace lost revenue

Possible Interpretation and Action

Inadequate handling of growth	Detractors aren't feeling well-served	Investing in detractor relationships creates positive ROI
• Improve recruiting & retention • Enhance coordination	• Match scope & fee to needs • Investigate employee turnover impact	• $11.4k CLV Gained = ~100 labor hours available to invest in conversion

Case Study #2

ADDING SENTIMENT TO MARKET ANALYSIS: CREATING AN IDEAL CLIENT PROFILE

Methods and History
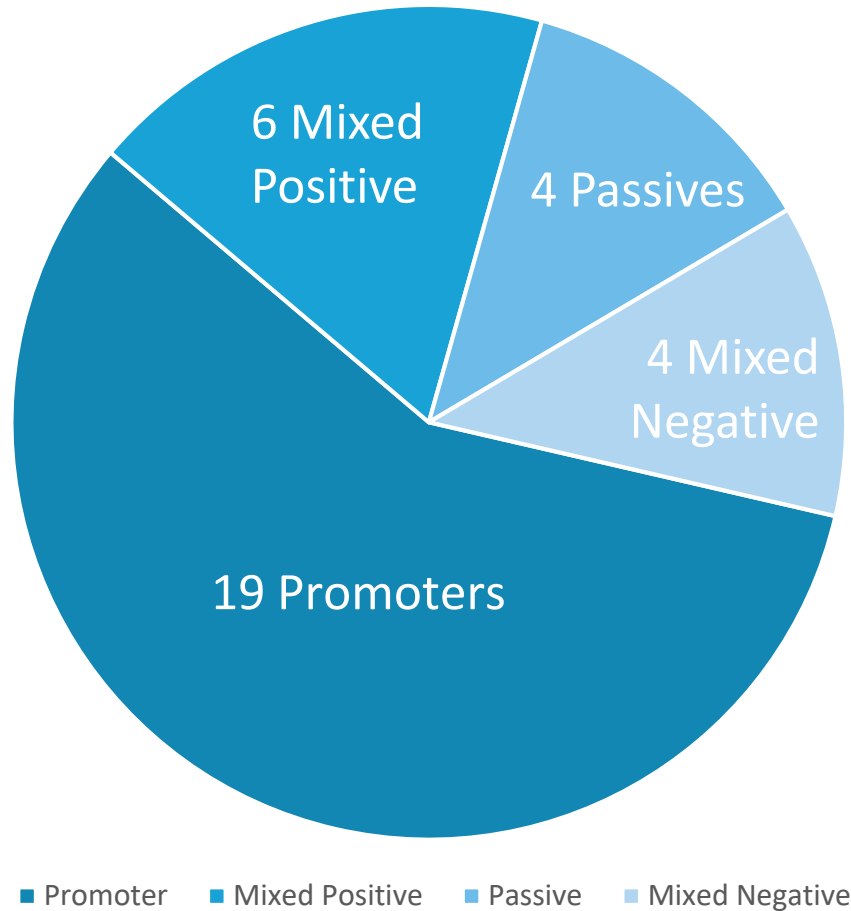
123 Projects Analyzed 2013 – 2018 (33 with NPS data)

$82M Revenue ($50M with NPS data)

Net Promoter System (NPS) Scores + Revenue & Profit

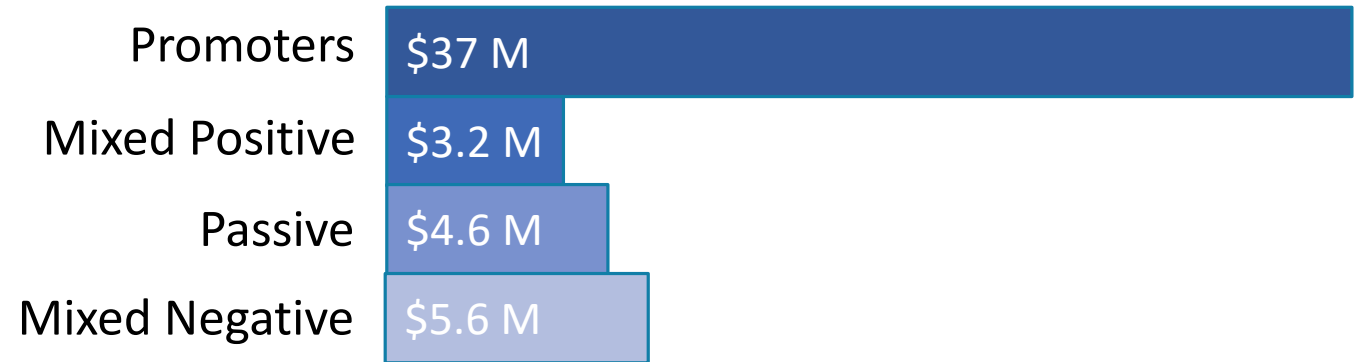NPS = 68 (Client Savvy average client = 67 in sample period)

Revenue / Profit by Sentiment Segment

Net Promoter Distribution

6 Mixed Positive

4 Passives

4 Mixed Negative

19 Promoters

■ Promoter ■ Mixed Positive ■ Passive ■ Mixed Negative

Revenue Per Segment

Segment	Revenue
Promoters	$37 M
Mixed Positive	$3.2 M
Passive	$4.6 M
Mixed Negative	$5.6 M

Margin Per Segment

Segment	Margin
Promoters	18%
Mixed Positive	1%
Passive	16%
Mixed Negative	32%

Revenue / Profit by Sentiment Segment

Row Labels	Revenue	Sum of Profit	Sentiment	Margin
Mixed Negative	$ 5.6 M	$ 1.8 M	2.0	32%
Passive	$ 4.7 M	$ 0.75 M	3.0	16%
Mixed Positive	$ 3.2 M	$ 0.03 M	4.0	1%
Promoter	$ 37.0 M	$ 6.7 M	5.0	18%
Grand Total	$ 51.4 M	$ 9.3 M	4.2	18%

"Average Score" calculation: Promoters = 5, Passives = 3, Detractors = 1

Interpretation and Analysis

The bulk of revenue comes from promoters. Likely the firm has a sustainable source of revenue long-term, as promoters are expected to be the best repeat buyers.

The firm generates a fair profit on promoters, but does not seem to capitalize on the "best in class" sentiment these clients have.

The firm generates the highest margin with the lowest sentiment clients. Potentially the firm is underserving this segment in some way, leading to lower cost (and higher margin) while damaging the brand and client trust.

Revenue / Profit / Sentiment by Industry Type

Row Labels	Sum of Revenue (k)	Sum of Profit (k)	Average of Score	Margin
Municipal, Water	$1,069	$121	5.0	11%
Mixed-Use Development	$8,153	$2,674	5.0	33%
Municipal, Waste Water	$249	$42	5.0	17%
Public Works	$266	($96)	5.0	-36%
Industrial	$22,183	$4,082	5.0	18%
Retail	$560	$25	4.5	5%
Utilities	$2,534	($143)	4.2	-6%
Transportation	$6,554	($24)	4.0	0%
Geotech	$1,248	($227)	4.0	-18%
Heavy Construction	$2,746	$1,220	3.0	44%
Environmental	$854	$167	3.0	20%
Resort / Hospitality	$4,063	$1,464	2.5	36%
Grand Total	$50,480	$9,306	4.2	

Interpretation and Analysis

Industrial represents an ideal project profile as they are proven to represent a large revenue source, and fair margin, and with positive CX results. Explore means of driving margin even higher to capture the positive brand value.

Mixed-Use Development projects also appear to be ideal, generating well-above average margins and also high client sentiment. Consider pursuing more of these opportunities while pricing at a premium.

Heavy Construction and **Resort / Hospitality** generate solid margins but the firm hasn't yet figured out how to generate positive CX with this segment. Exit this space or further explore the unique needs of these buyers to improve CX – empathy/journey map, build personas, etc.

Transportation generates reasonably positive CX with large revenue, but at minimal profit. The firm might consider pursuing fewer high-probability opportunities with higher-priced proposals, accepting a lower win rate in exchange for fewer, more profitable projects.

Revenue / Profit / Sentiment by Size

Segment	Sentiment	Revenue (k)	Profit (k)	Margin	Likelihood of 10% Profit	Revenue Range
1	5.0	$109	($0)	0%	59%	0k - 100k
2	4.6	$843	($23)	-3%	38%	100k - 200k
3	4.5	$1,954	($26)	-1%	63%	200k - 400k
4	4.0	$1,516	($278)	-18%	20%	400k - 600k
5	3.8	$3,648	$457	13%	55%	600k – 1,000k
6	3.0	$2,083	($189)	-9%	25%	1,000k – 1,400k
7	4.3	$6.573	$554	8%	40%	1,400k – 2,000k
8	4.3	$33.755	$8.810	26%	100%	2 M+
Grand Total	4.2	$50,480	$9,306			

Revenue / Profit / Sentiment by Size
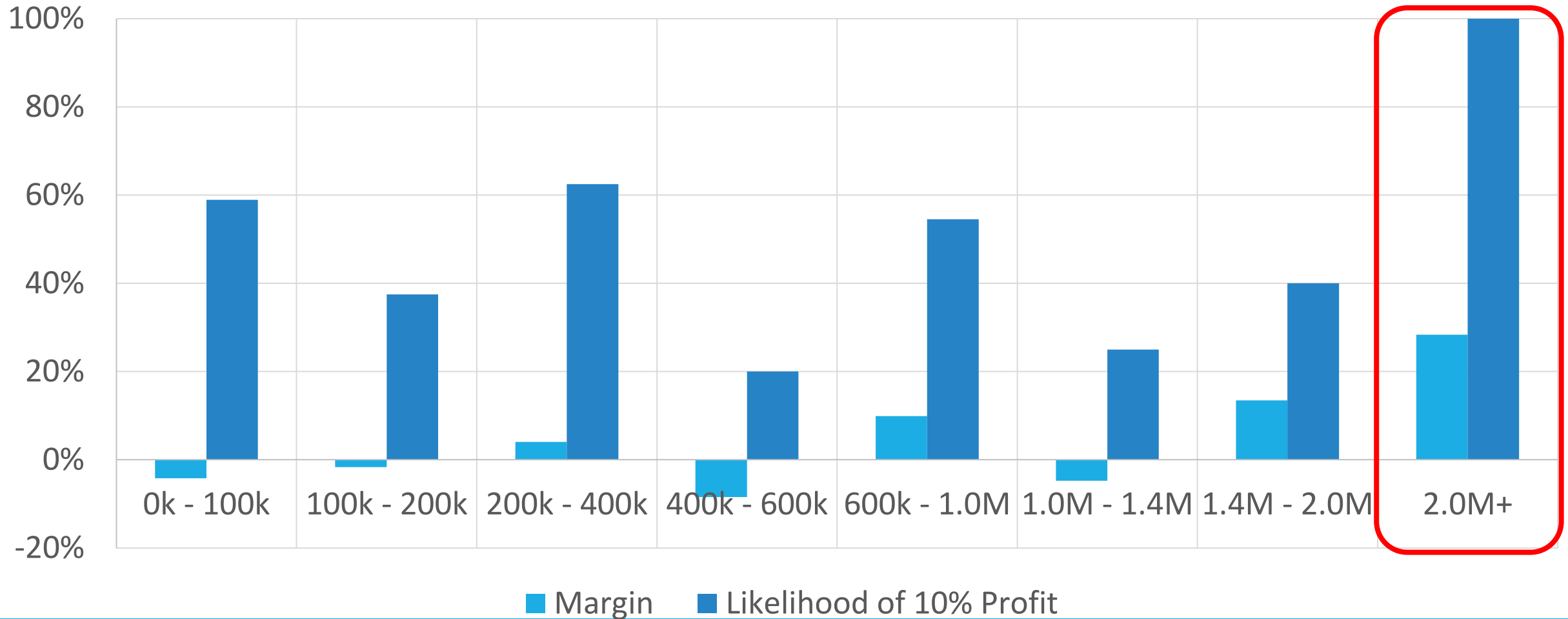
Interpretation and Analysis

The firm is much more likely to be profitable, and overall much more profitable, on larger projects. The firm may consider focusing more effort on higher quality pursuits of large ($2M+) projects.

Despite very strong sentiment, on projects under $600k the firm loses money overall, and loses money on half the projects. The firm can either stop proposing on these projects, increase proposed fee substantially (which will decrease win rate), and/or improve discipline in delivery to drive efficiency.

From a sentiment perspective, the firm performs best with small projects, likely because they over-deliver relative to the fees charge (as seen by the net loss on all projects under $600k). If the firm chooses to intake smaller projects, consider increasing fees or reducing time spent on delivery; convert the "positive value gap" to better business outcomes.

From a sentiment perspective, the firm performs worst with projects between $600k - $1,400k in fee. The firm barely achieves profit on this segment. Unless fees are increased, the firm will struggle to add time for improved CX while also achieving healthy margins.

From a sentiment perspective, the firm underperforms at the mid-tier (projects from $600k - $1,400k in size). The firm might consider investigating the CX of these projects to (1) improve sentiment and (2) capture the improved value perception as increased margins (this segment provides only marginal net margin currently).

Client Lifetime Value – Analysis

Lifetime by Sentiment Segment

Segment	Years
Promoters	4.9 Years
Passive	6.5 Years
Detractor	9.0 years

Margin Per Segment

Segment	Margin
Promoters	18%
Mixed Positive	1%
Passive	16%
Mixed Negative	32%

Profit:
18% vs 32% **(-44%)**

Lifetime:
4.9 vs 9.0 years **(-45%)**

Why aren't promoters paying more and staying longer?

Decision Summary

The firm might consider focusing only on projects over $1,400k in fee in the Industrial and Mixed-Use Development segments. The firm has a 100% track record of creating profit and positive CX in this intersection, leading to sustainable client loyalty and maximum CLV.

The firm may consider pursuing projects under $400k in the Municipal segments but with greatly inflated fee proposals (20% higher than historic); accept a lower win rate and higher margin to reward the great CX happening there.

The firm may need to re-design the CX for Resort, Environmental, and Heavy Construction segments if they desire to stay in the space. Focus on the largest projects (over $2M) and invest the high margin in creating a positive CX to drive loyalty and referrals.

How will you use CLV?

Please give us your feedback.
The more you give, *the more points* you will receive!

Home…Agenda…Session …bottom of screen