

2020 Eighth Annual Case Competition

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Analysis Based on
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Renewal Probability
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Implications

BLOCK DENTAL

- Founded 2012
- New businesses
- Loss Ratio: 88%→70%





CASE OBJECTIVES | 01

PROBLEM

Loss Ratio of 88%

SOLUTION

Stricter Renewal
Policy



ANALYSIS BASED ON BANDS

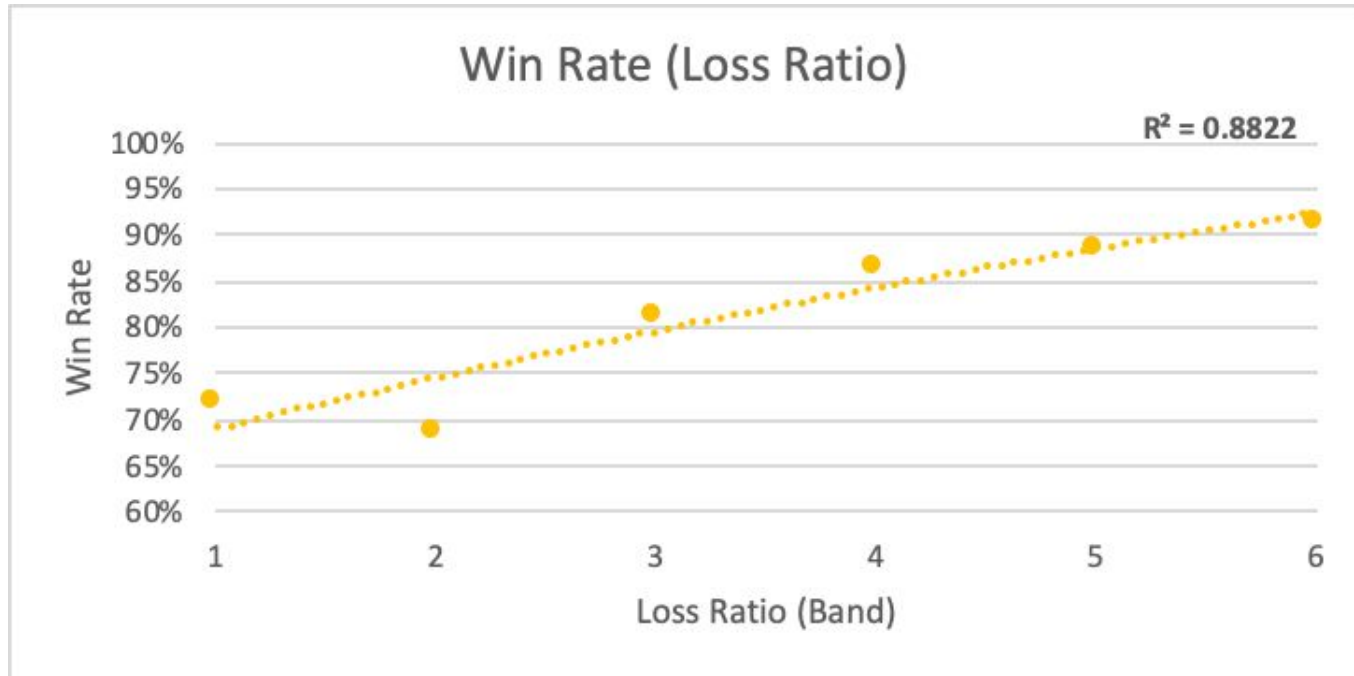
02

Win Rate

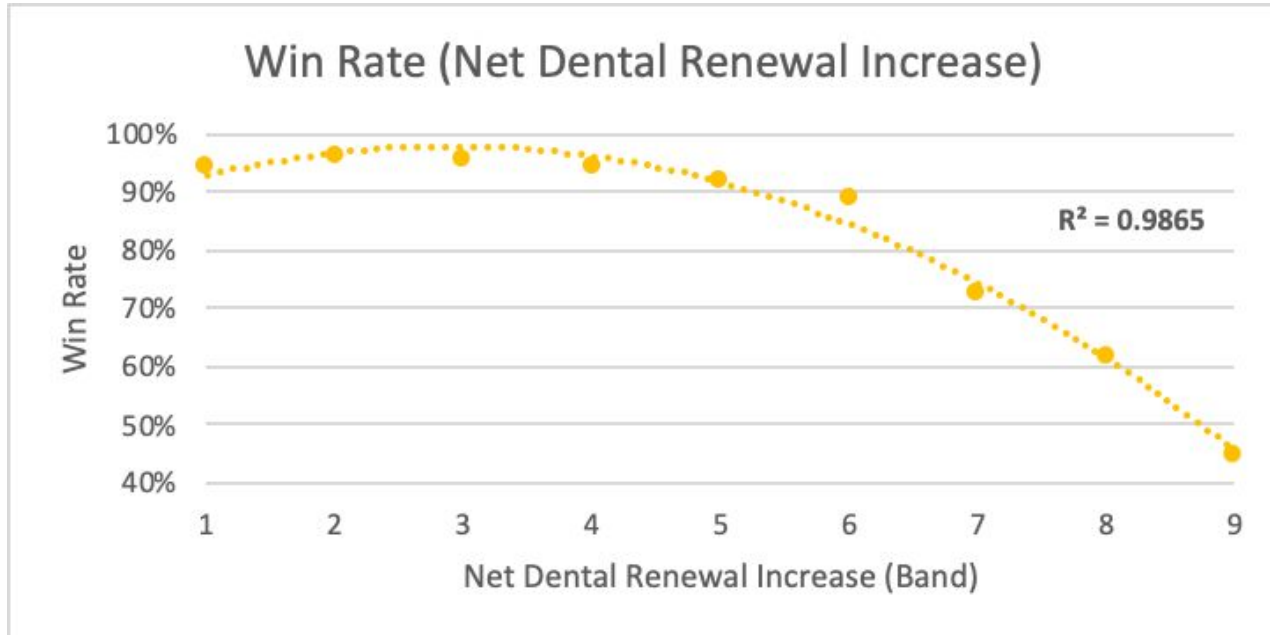
Win Cases

Total Cases

Loss Ratio



Net Dental Renewal Increase





03

Renewal Probability Model

Renewal Probability Model



Assumptions



Demand for Dental Insurance

Without Inflation

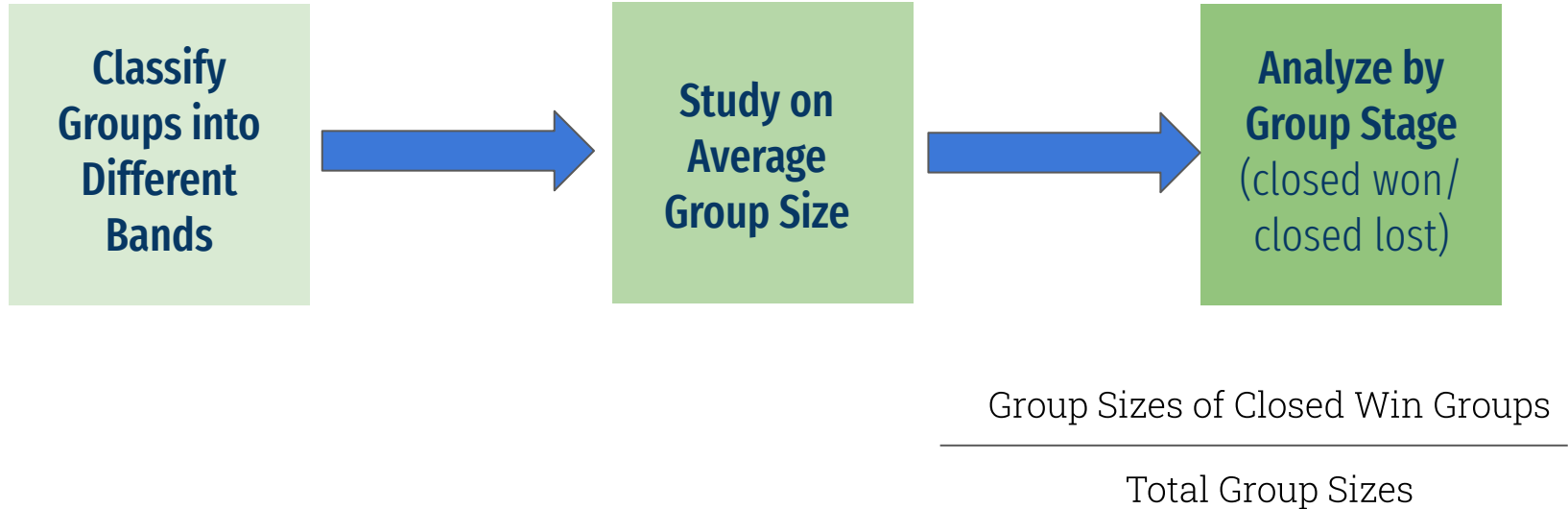
Same Coverage

Renewal Probability Model

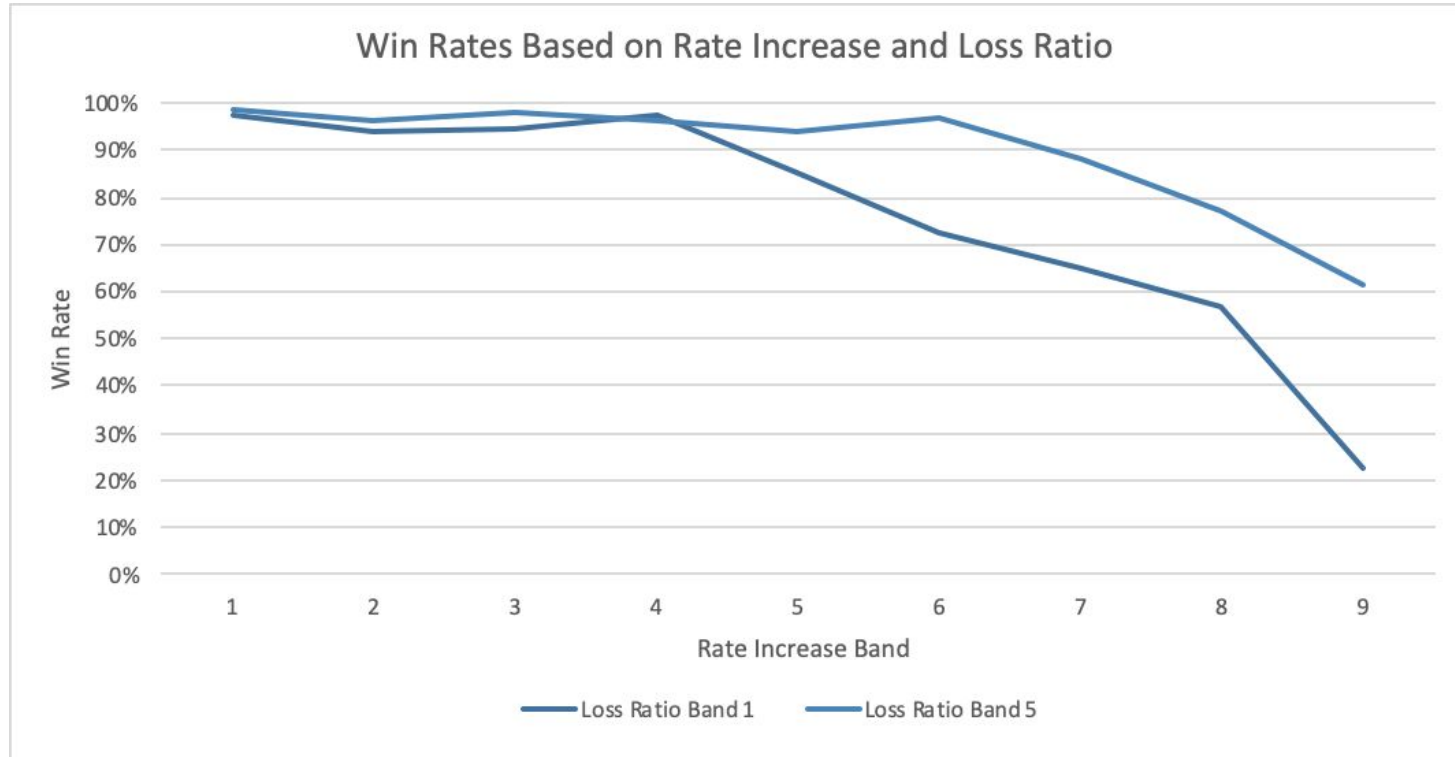


- Loss Ratio (6 bands)
- Renewal Increase (9 bands)

Renewal Probability Model



Renewal Probability Model



Renewal Probability Model - Implementation

revenue= (1+rate increase)*win rate

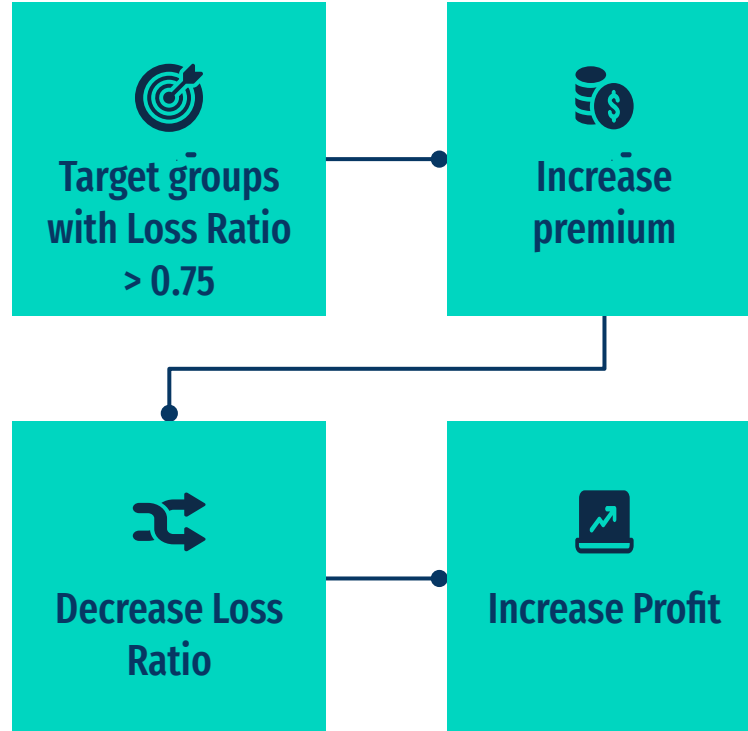
		Loss Ratio		
		(75,100]	(100,150]	(150,9999]
Rate Increase	(-100,0)	97.29%	98.97%	99.25%
	0	96.35%	96.31%	97.98%
	(0,2]	96.68%	98.21%	99.31%
	(2,4]	92.81%	96.21%	98.08%
	(4,6]	92.86%	94.14%	99.74%
	(6,10]	98.74%	96.77%	97.84%
	(10,15]	84.78%	88.52%	85.32%
	(15,20]	63.82%	77.07%	95.50%
	(20,9001]	64.10%	61.24%	68.16%



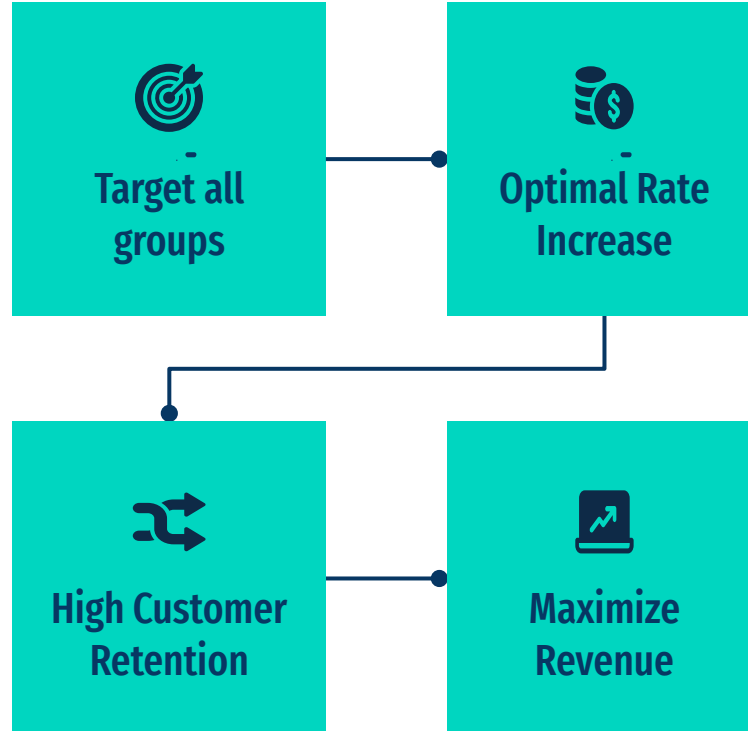
04

BUSINESS
STRATEGY

Strategy #1



Strategy #2



OUR STRATEGIES



Maximize **profit** through increasing premium by **large** increments

Strategy #1



Combined
**Renewal
Strategy**



Loss ratio to under 70%.

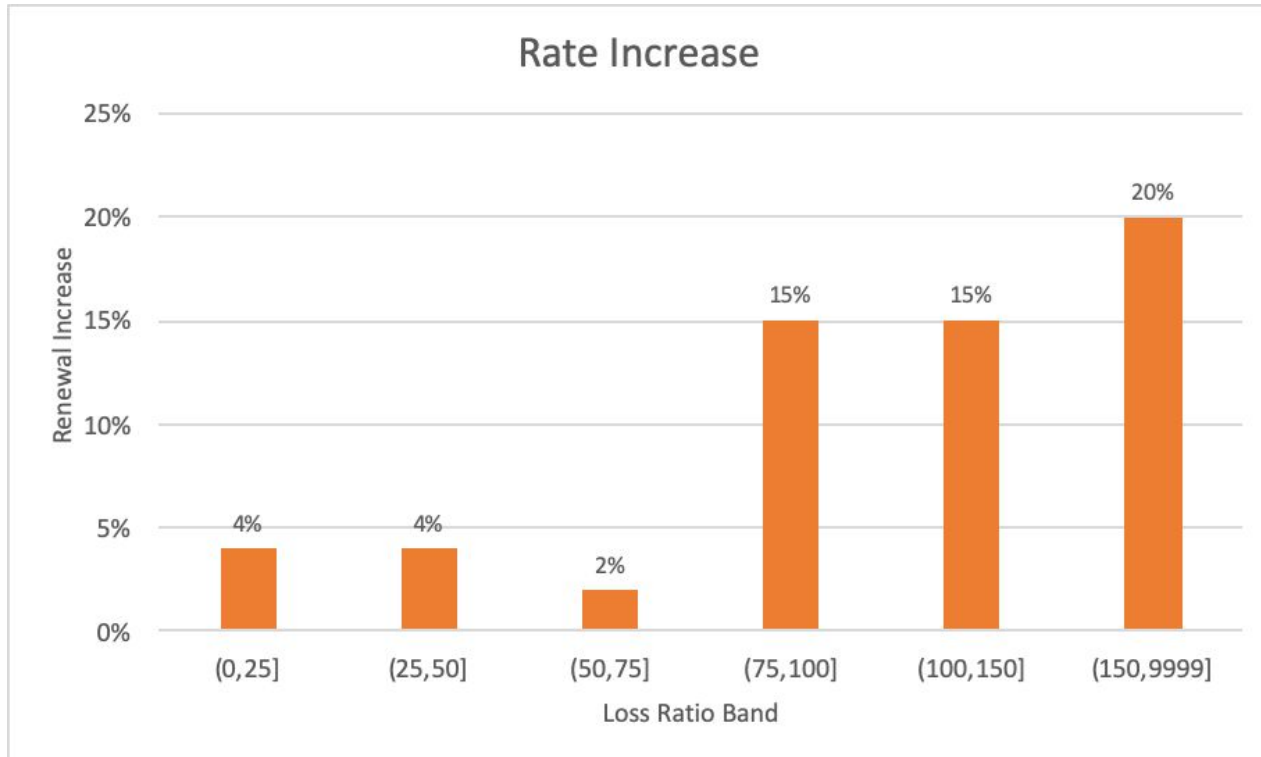
#1 + #2



Maximize **revenue** through increasing premium by **small** increments

Strategy #2

Combined Strategy



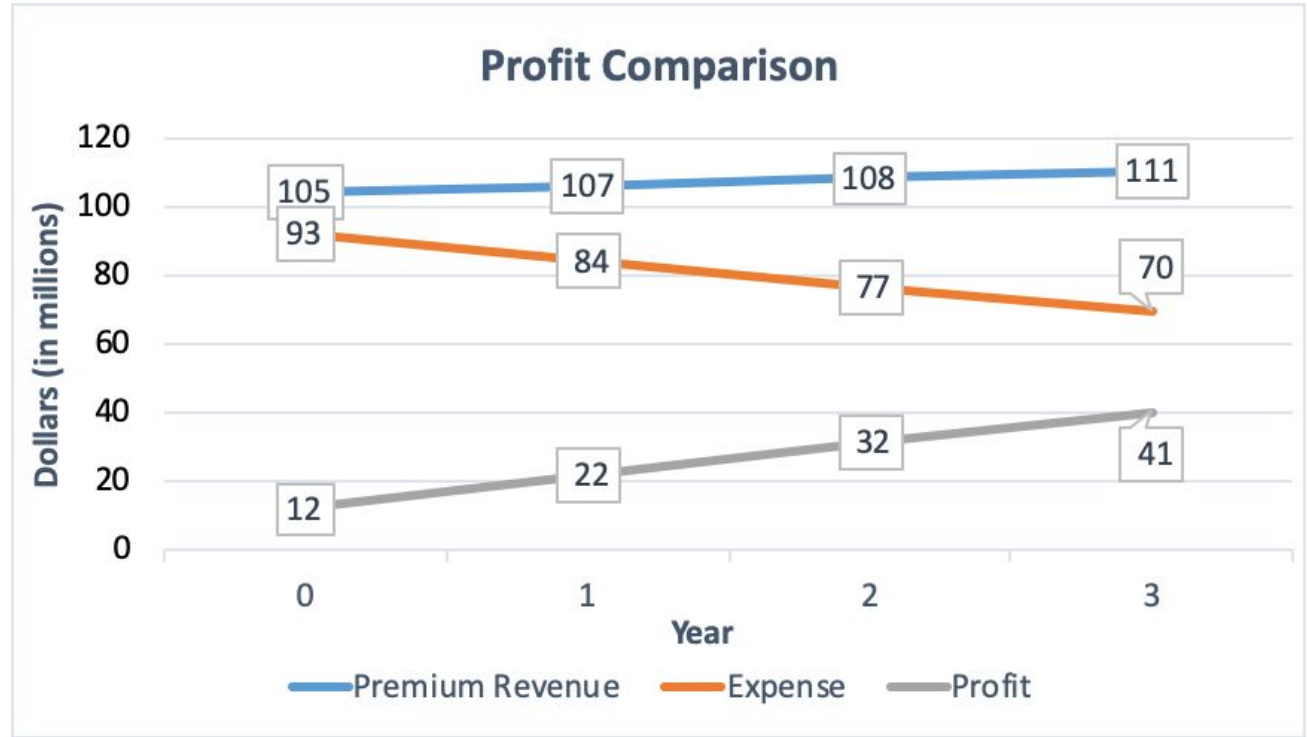
Projected 3 Year Plan

Strategy #1 Implementation

Expenses decrease
and revenue
increases steadily

||

Increase profit
overall



A top-down view of a wooden desk with a laptop, papers, a cactus, and a person's hands working. The scene is overlaid with a dark blue semi-transparent rectangle containing the text 'IMPLICATIONS' and '05'.

IMPLICATIONS | 05

Projected 3 Year Plan



Combined Strategy Desired Outcome

Decrease loss ratios so that average for all bands is < 70%.

Not Included



Additional Solutions



Solution:

Raise the premium cost by small increments for groups with loss ratios < 0.7 and raise premium by large increments for remaining groups.



THANK YOU