



# Northern Aero

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# 01

## Overview





# About Northern Aero

- Northern Aero is a major Scandinavian airline, facing industry challenges in the mid-2000s
- Led by CEO Lars Andersen and new CMO Jannick Jörgensten
- Operates a Frequent Flyer Program with Platinum, Gold, and Silver tiers.
- 58,000 active members in the loyalty program
- Annual marketing budget of approximately \$50 million

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# Challenges, Opportunities



# Turbulence Ahead: Challenges and Opportunities

## Challenges:

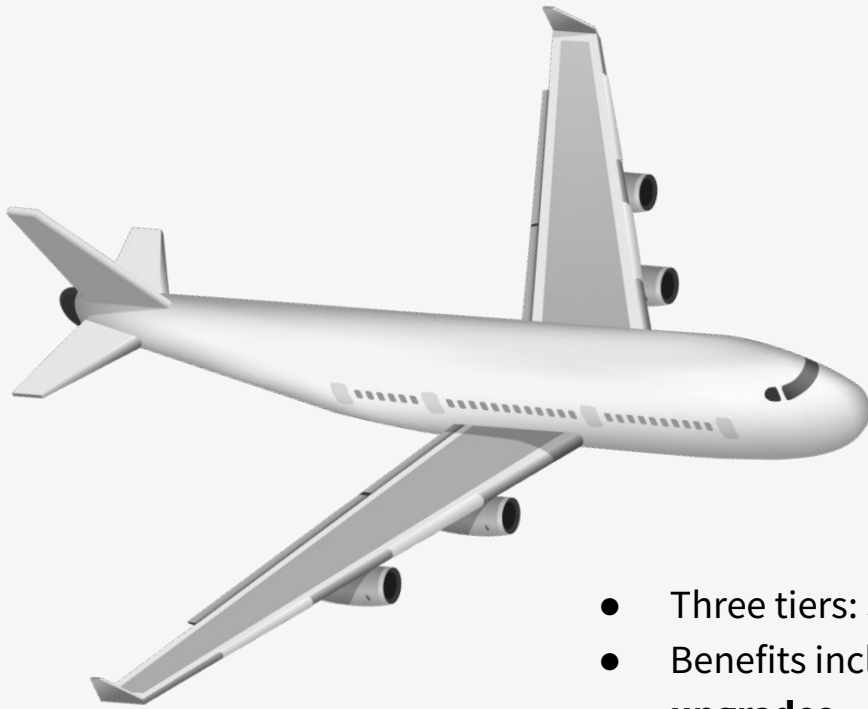
- Reduced travel due to terrorism fears and health concerns.
- Economic slowdown and increased fuel costs
- Growing competition from low-cost carriers
- Changing customer behavior due to technological advancements

## Opportunities:

- Optimize the expensive Frequent Flyer Program
- Improve customer retention and loyalty
- Increase the effectiveness of marketing spend
- Leverage data analytics for better decision-making



# Frequent Flyer Program Details



- Three tiers: Silver, Gold, and Platinum
- Benefits include **priority boarding**, **lounge access**, and **upgrades**
- Up to **30 targeted marketing campaigns** annually
- Key Players: Jannick Jörgensten (CEO), ZENITH Consulting
- Problem: Raising questions about its future scope and efficiency.

# Charting a New Course: Why It Matters



- **Evaluate the ROI** of the Frequent Flyer Program to **justify its high costs**
- Optimize **resource allocation** across customer segments for **maximum impact**
- **Improve long-term profitability** by focusing on customer lifetime value
- **Stay competitive** in a rapidly evolving airline industry
- Build a foundation for sustainable growth and customer loyalty



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# Case Study Questions



# FREQUENT FLYER PROGRAM

## Objective

The objective is to evaluate the lifetime value (LTV) of Northern Aero's customer segments using a **15% discount rate**. This analysis will help determine the economic value of the customer base and assess the effectiveness of the loyalty program.

## Data Overview:

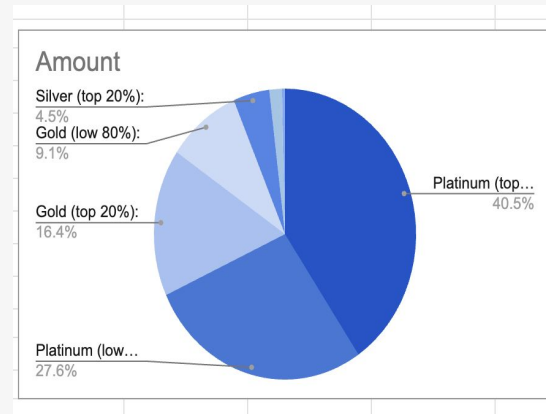
**Customer segments:** Platinum, Gold, Silver, Inactive, and Lost.

**Each segment is further divided into top 20% and low 80% based on value.**

## Lifetime Value Calculation:

Using the Engenius Lifetime Value model to calculate the LTV for each segment.

Considering gross margins and loyalty program costs in the calculations.



# KPI METRICS FOR ANALYSIS

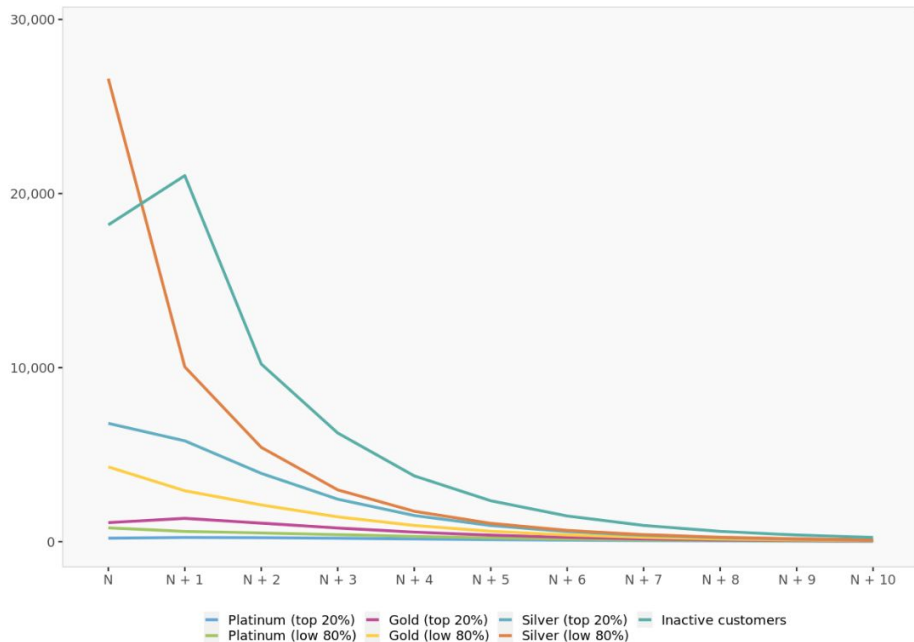
- Number of Customers
- Gross Margin
- Marketing Cost
- Average miles per Year
- Passenger Yield per mile
- Passenger Yield per year
- Loyalty Program Cost`

## Segment & Transition Overview

- **Current:** Gross margins with the loyalty program.
- **No Loyalty:** Impact of removing all promotions.
- **Optimized:** ZENITH's recommended spend levels and transitions.
- **Transition Matrix:** Tracks customer shifts across all scenarios.



# CUSTOMER SEGMENT EVOLUTION AND TRANSITION MATRIX



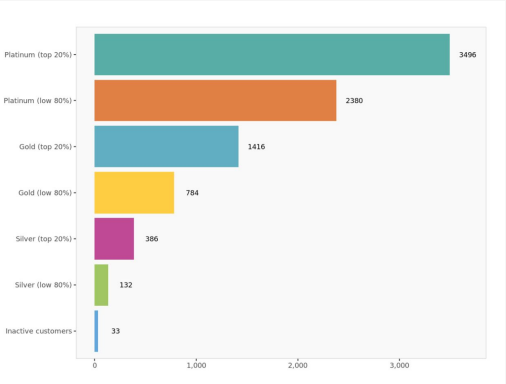
## Transition matrix

	Platinum (top 20%)	Platinum (low 80%)	Gold (top 20%)	Gold (low 80%)	Silver (top 20%)	Silver (low 80%)	Inactive customers	Lost customers
Platinum (top 20%)	39.4%	13.1%	10.1%	3.0%	2.0%	1.0%	31.3%	0.0%
Platinum (low 80%)	10.9%	32.7%	10.9%	7.9%	3.0%	2.0%	32.7%	0.0%
Gold (top 20%)	3.0%	9.9%	30.7%	9.9%	7.9%	3.0%	35.6%	0.0%
Gold (low 80%)	1.0%	3.0%	10.0%	30.0%	10.0%	8.0%	38.0%	0.0%
Silver (top 20%)	0.0%	1.0%	3.0%	11.0%	34.0%	11.0%	40.0%	0.0%
Silver (low 80%)	0.0%	0.0%	1.0%	2.0%	9.0%	28.0%	60.0%	0.0%
Inactive customers	0.0%	0.0%	0.0%	1.0%	3.0%	8.0%	0.0%	88.0%
Lost customers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

**Transition matrix.** Segments on the left represent where customers come from. Segments on top represent where customers are likely to transition to. A segment with a transition probability to itself of 100% is said to be an 'absorbing state'.

# Lifetime Value of a Typical Customer in Each Segment

- 1. Platinum (top 20%): \$3,495.92
- 2. Platinum (low 80%): \$2,379.75
- 3. Gold (top 20%): \$1,415.70
- 4. Gold (low 80%): \$783.88
- 5. Silver (top 20%): \$385.60
- 6. Silver (low 80%): \$132.41
- 7. Inactive customers: \$33.21
- 8. Lost customers: \$0.00



# Total Value of the Existing Customer Database

To calculate the total value of the customer database, we multiply the lifetime value of each segment by the number of customers in that segment and sum the results:

- 1. Platinum (top 20%):  $200 * \$3,495.92 = \$699,184$
- 2. Platinum (low 80%):  $800 * \$2,379.75 = \$1,903,800$
- 3. Gold (top 20%):  $1,100 * \$1,415.70 = \$1,557,270$
- 4. Gold (low 80%):  $4,300 * \$783.88 = \$3,370,684$
- 5. Silver (top 20%):  $6,800 * \$385.60 = \$2,622,080$
- 6. Silver (low 80%):  $26,600 * \$132.41 = \$3,522,106$
- 7. Inactive customers:  $18,200 * \$33.21 = \$604,422$
- 8. Lost customers:  $0 * \$0.00 = \$0$

# Customer Base Valuation

	N + 1	N + 2	N + 3	N + 4	N + 5	N + 6	N + 7	N + 8	N + 9	N + 10	...	Infinity
Gross margin	\$ 5 699 331	\$ 4 584 951	\$ 3 469 962	\$ 2 516 819	\$ 1 769 692	\$ 1 216 788	\$ 823 119	\$ 550 238	\$ 364 631	\$ 240 085		\$ 0
Next-period cost	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0		\$ 0
Net margin	\$ 5 699 331	\$ 4 584 951	\$ 3 469 962	\$ 2 516 819	\$ 1 769 692	\$ 1 216 788	\$ 823 119	\$ 550 238	\$ 364 631	\$ 240 085		\$ 0
Discount Factor	87.0%	75.6%	65.8%	57.2%	49.7%	43.2%	37.6%	32.7%	28.4%	24.7%		0.0%
Discounted net margin	\$ 4 955 940	\$ 3 466 881	\$ 2 281 556	\$ 1 439 000	\$ 879 850	\$ 526 051	\$ 309 441	\$ 179 874	\$ 103 651	\$ 59 345		\$ 0
Discounted net margin (cumulated)	\$ 4 955 940	\$ 8 422 821	\$ 10 704 378	\$ 12 143 377	\$ 13 023 227	\$ 13 549 278	\$ 13 858 719	\$ 14 038 593	\$ 14 142 244	\$ 14 201 589		\$ 14 279 572

Customer base valuation.

## Total Customer Base Value:

- Calculate the total value by multiplying the LTV by the number of customers in each segment.
- Sum across all segments to get a total value of \$14,279,546.

**Conclusion:** The analysis reveals that the loyalty program is valuable, particularly for high-value segments. However, there is potential to optimize spending by focusing on segments with the highest LTV. This approach will ensure better resource allocation and improved profitability.



02

# Question

A very severe discount factor of 40%

# Northern Aero Loyalty Program Analysis (40% Discount Rate)



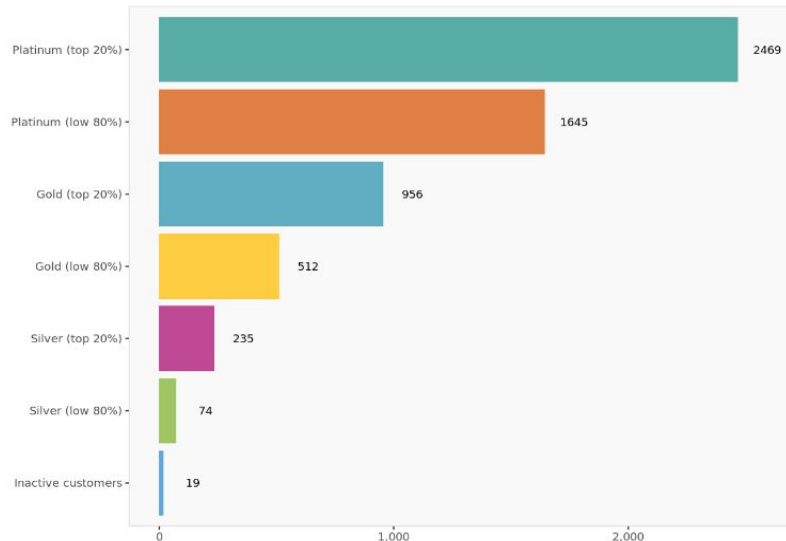
- Program categorizes customers into Platinum, Gold, and Silver tiers
- Further segmentation into top 20% and bottom 80% by value within each tier
- Current total customer base: 58,000 active members
- Analysis using a 40% discount rate for short-term focus



# Customer Lifetime Value and Database Value

	Customer lifetime value (\$)
Platinum (top 20%)	\$ 2 468.77
Platinum (low 80%)	\$ 1 644.76
Gold (top 20%)	\$ 955.55
Gold (low 80%)	\$ 511.58
Silver (top 20%)	\$ 234.94
Silver (low 80%)	\$ 74.04
Inactive customers	\$ 18.77

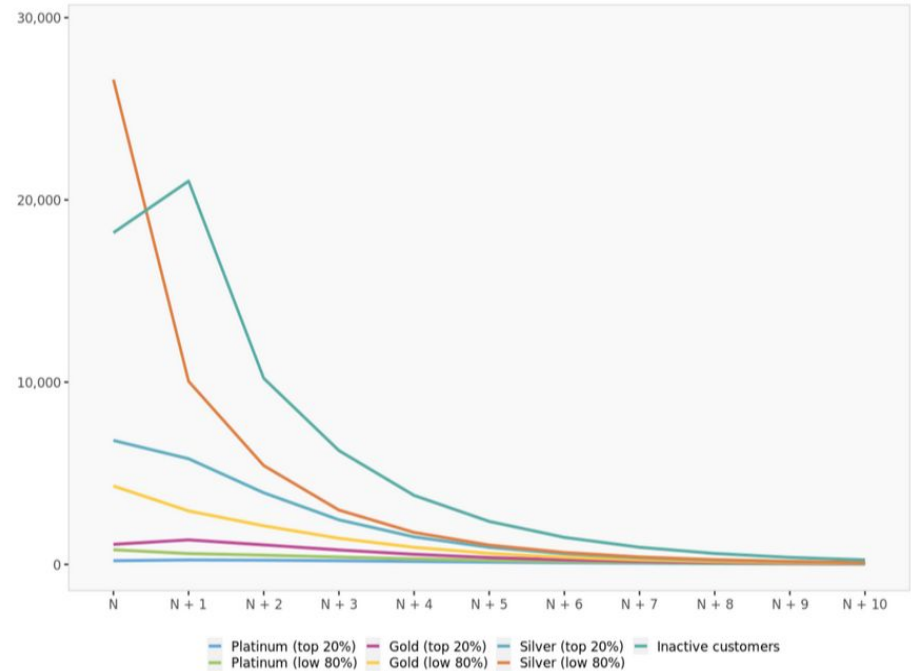
Customer lifetime value per segment



- Highest CLV: Platinum (top 20%) at \$2,468.77
- Lowest CLV (excluding lost customers): Inactive customers at \$18.77
- Total database value: \$8,969,159

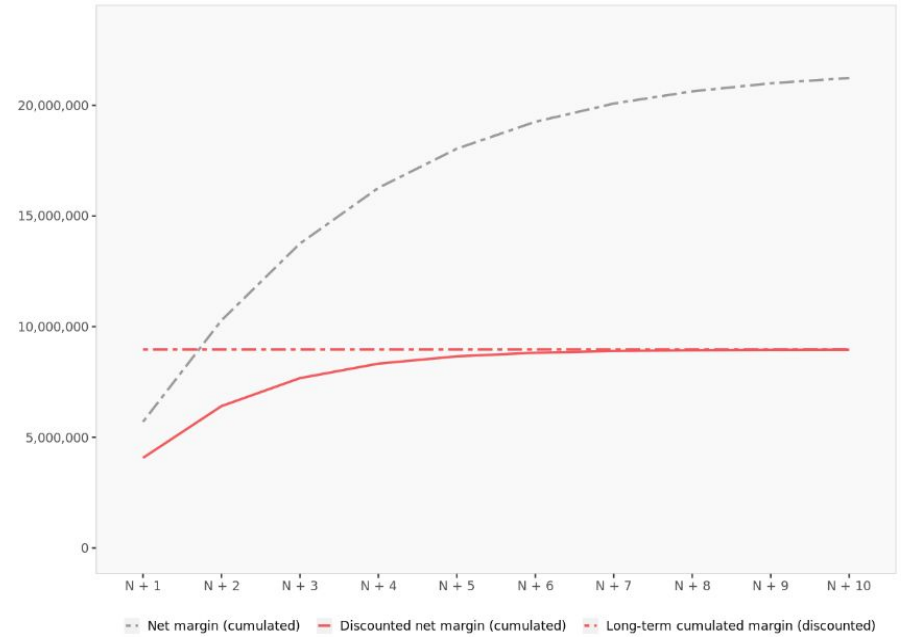
# Customer Lifetime Value and Database Value

- Significant value difference between top 20% and bottom 80% within tiers
- Short-term focus results in lower overall customer values
- Importance of retaining high-value customers
- Potential for targeted strategies to move customers up the value chain



# Customer Lifetime Value and Database Value

- Significant value difference between top 20% and bottom 80% within tiers
- Short-term focus results in lower overall customer values
- The data regresses over time emphasizing the short-term results





03

# Question

What is the return on investment of the loyalty program?

# Impact of Loyalty Program on Customer Value



# Impact of Loyalty Program on Customer Value



- Comparison of customer base value with and without loyalty program
- Significant increase in Customer Lifetime Value (CLV) across all segments
- **Improved customer retention rates**

Transition matrix

	Platinum (top 20%)	Platinum (low 80%)	Gold (top 20%)	Gold (low 80%)	Silver (top 20%)	Silver (low 80%)	Inactive customers	Lost customers
Platinum (top 20%)	39.4%	13.1%	10.1%	3.0%	2.0%	1.0%	31.3%	0.0%
Platinum (low 80%)	10.9%	32.7%	10.9%	7.9%	3.0%	2.0%	32.7%	0.0%
Gold (top 20%)	3.0%	9.9%	30.7%	9.9%	7.9%	3.0%	35.6%	0.0%
Gold (low 80%)	1.0%	3.0%	10.0%	30.0%	10.0%	8.0%	38.0%	0.0%
Silver (top 20%)	0.0%	1.0%	3.0%	11.0%	34.0%	11.0%	40.0%	0.0%
Silver (low 80%)	0.0%	0.0%	1.0%	2.0%	9.0%	28.0%	60.0%	0.0%
Inactive customers	0.0%	0.0%	0.0%	1.0%	3.0%	8.0%	0.0%	88.0%
Lost customers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

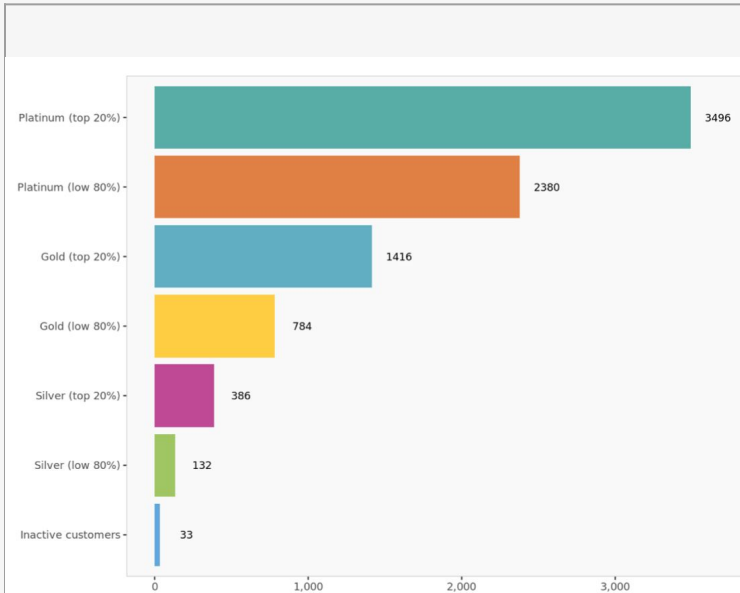
**Transition matrix.** Segments on the left represent where customers come from. Segments on top represent where customers are likely to transition to. A segment with a transition probability to itself of 100% is said to be an 'absorbing state'.

Transition matrix

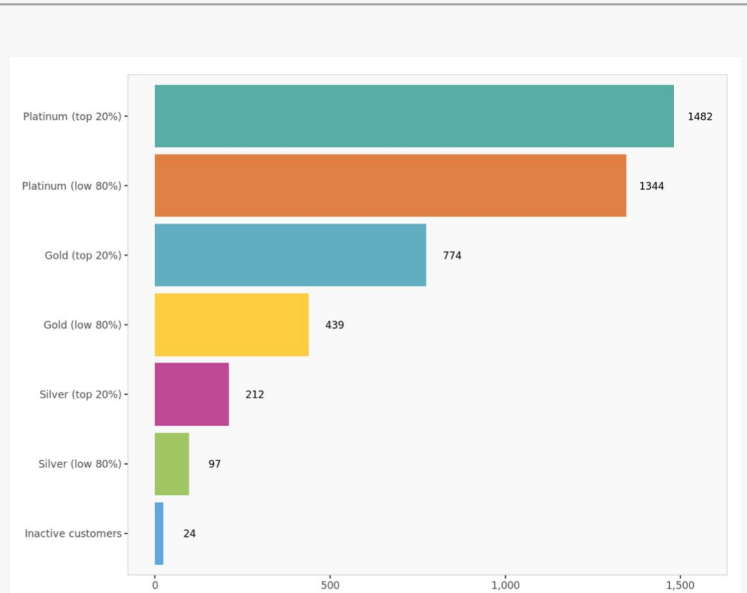
	Platinum (top 20%)	Platinum (low 80%)	Gold (top 20%)	Gold (low 80%)	Silver (top 20%)	Silver (low 80%)	Inactive customers	Lost customers
Platinum (top 20%)	19.0%	9.0%	8.0%	5.0%	5.0%	4.0%	50.0%	0.0%
Platinum (low 80%)	8.0%	23.0%	8.0%	6.0%	2.0%	1.0%	52.0%	0.0%
Gold (top 20%)	2.0%	7.0%	22.0%	7.0%	6.0%	2.0%	54.0%	0.0%
Gold (low 80%)	1.0%	2.0%	7.0%	22.0%	7.0%	6.0%	55.0%	0.0%
Silver (top 20%)	0.0%	1.0%	2.0%	8.0%	24.0%	8.0%	57.0%	0.0%
Silver (low 80%)	0.0%	0.0%	1.0%	2.0%	9.0%	26.0%	62.0%	0.0%
Inactive customers	0.0%	0.0%	0.0%	1.0%	3.0%	7.9%	0.0%	88.1%
Lost customers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

**Transition matrix.** Segments on the left represent where customers come from. Segments on top represent where customers are likely to transition to. A segment with a transition probability to itself of 100% is said to be an 'absorbing state'.

# CLV With vs. Without Loyalty Program



Customer lifetime value per segment - With Loyalty Program



Customer lifetime value per segment - Without Loyalty Program

# Customer Lifetime Value With vs. Without Loyalty Program



- CLV increased for all customer segments
- Largest absolute increases in high-value segments
- Relative value of segments maintained



# Loyalty Program ROI and Long-term Benefits

- Net increase in customer base value: \$5,707,189
- Improved customer retention and segment stability
- Long-term compounding effects on customer value





04

# Question

What is the return on investment of the loyalty program?

# ZENITH's Optimization Strategy for Northern Aero's Loyalty Program



- Targeted investment in high-value customer segments
- Reallocation of loyalty program budget
- Focus on improving retention and upward migration

# Changes in CLV Post-Optimization

- Increased CLV for most segments, especially high-value tiers
- Slight decrease in CLV for lower-value segments





04

# ZENITH consultants' optimization analysis

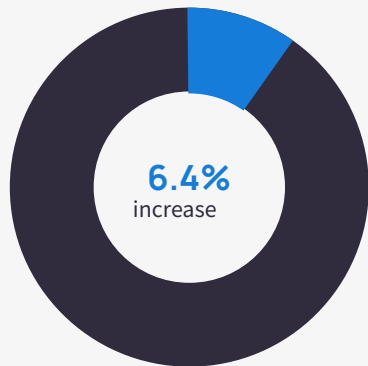
# Strategic Implications of Optimization



- Maintained overall customer base value while improving efficiency
- Long-term focus on value creation
- Balanced approach to customer investment

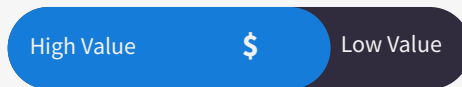
Segment	Loyalty Program Costs	Loyalty Program Costs
Platinum (top 20%)	\$150	\$360
Platinum (low 80%)	\$150	\$225
Gold (top 20%)	\$25	\$74
Gold (low 80%)	\$25	\$29
Silver (top 20%)	\$10	\$15
Silver (low 80%)	\$10	\$0
Inactive customers	\$2	\$0
Lost customers	\$0	\$0

# Recommendation



Increased the overall loyalty program budget from **\$661,000** to **\$703,000** annually

**Increased spending** on high-value customers (top 20% in each tier) and **reduced or eliminated spending** on lower-value customers





- Focusing resources on high-value customers **yields better returns**
- Some low-value customers may **not be worth investing in**
- **Differentiated treatment** within tiers can improve program efficiency
- Small **increases in retention rates** for high-value customers have a large impact on overall customer lifetime value

The optimization aims to maximize the return on loyalty program investments by allocating more resources to customers with higher lifetime values.

Insights

05

# Recommendations to board



# Adopt ZENITH's Loyalty Program with Modifications:

**Budget Reallocation:** Focus on high-value customers; increase spending on Loyalty program.

**Gradual Implementation:** Roll out changes over 6-12 months to monitor impact.

**Silver Tier Strategy:** Maintain minimal engagement (\$5 per customer annually) to keep basic communication open.

**Enhanced Analytics:** Invest in data analytics and customer segmentation for refined insights.

**Tiered Communication:** Clearly explain changes, highlighting benefits for high-value segments.

**Pathways for Upward Mobility:** Create opportunities for customers to move to higher-value tiers.

# 06

## Reflection

- What has been achieved already?
- Changes in the existing plan?



# Conclusion

- Implement existing ZENITH's optimization strategy with modifications
- Increase overall loyalty program budget by 5-10% to have long-term impact
- Reallocate spending to focus on high-value customers and eliminate or significantly reduce spending on Inactive and Silver (low 80%) segments