REDEFINING



TRAVEL PORTAL

CCC Mock Case Presentation

MEET THE TEAM



Viraaj
Project Manager



Nathan
Consultant



Sanaya
Consultant



Amy
Consultant



Alan
Consultant



Jet
Consultant

SMARTER TRAVEL, POWERED BY AI: ELEVATING THE CAPITAL ONE EXPERIENCE

Travel planning should be exciting, but too often, it’s overwhelming. Travelers spend hours searching, second-guessing, and hoping they’ve booked at the right time. What if AI could take the guesswork out of the process, offering clarity and confidence instead?

AGENDA

01 THE MODERN LANDSCAPE

Understanding AI, Financial Services and Travel dynamics

02 CAPITAL ONE-CHOOSING STRATEGY

Narrowing down the approach we suggest

03 OUR RECOMMENDED APPROACH

Breaking down our idea on AI Implementation

04 IMPLEMENTING CHANGES

Laying a roadmap to achieving objectives

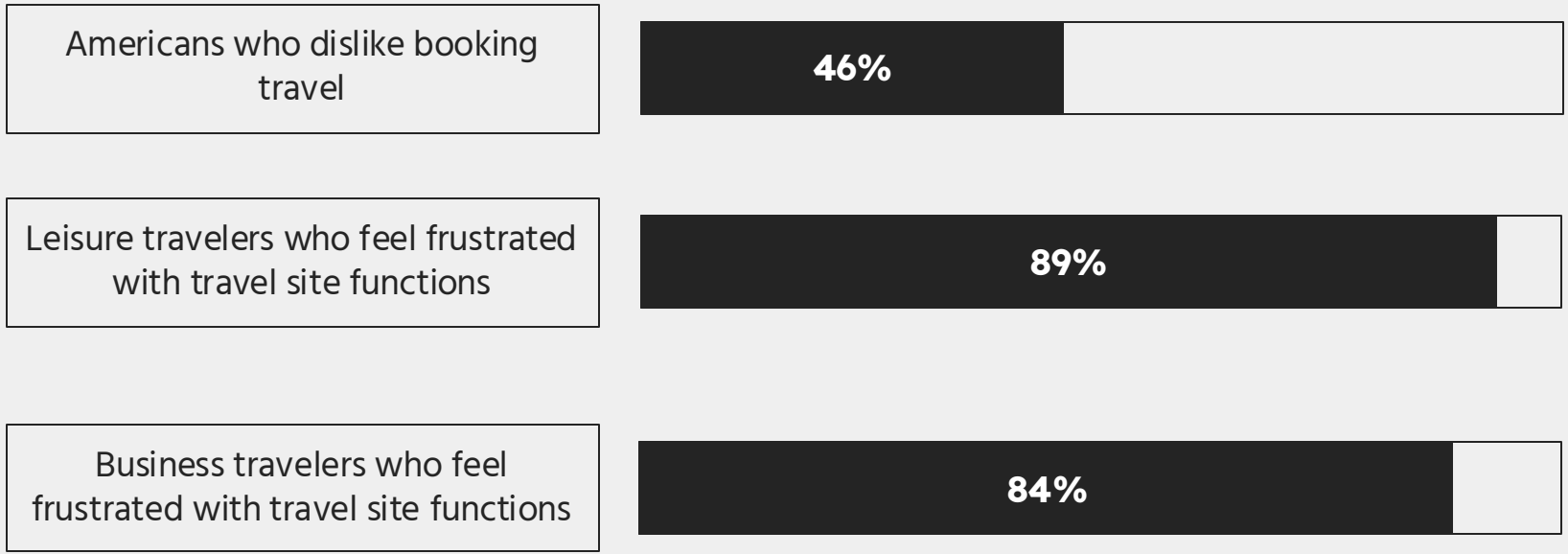


01

THE MODERN LANDSCAPE

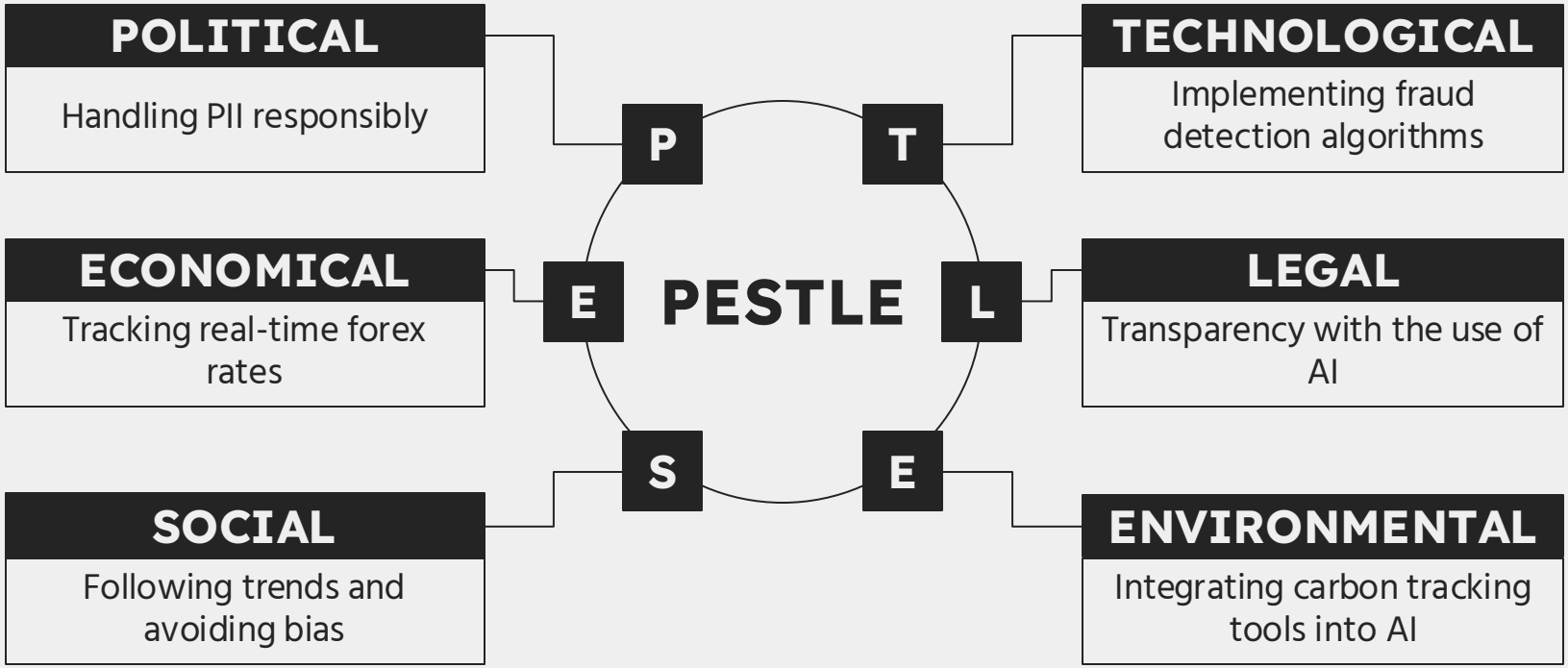
TRAVEL BOOKING WOES ARE FRUSTRATING CUSTOMERS ONLINE

TROUBLING STATISTICS FROM 2024 ONLINE BOOKINGS:



*Source: TravelPerk

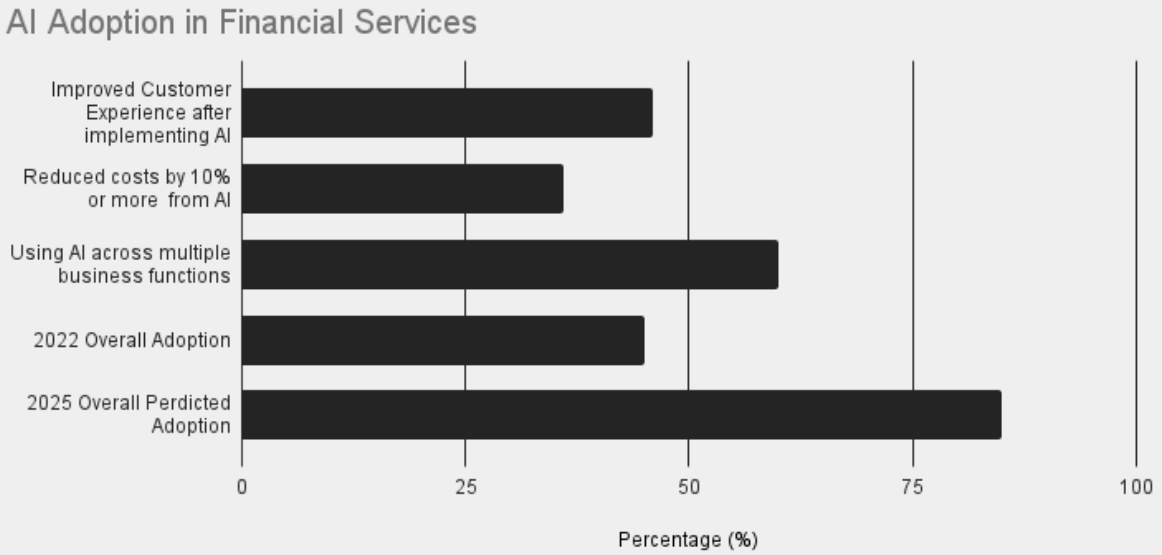
ASSESSING FINANCIAL SERVICES AS OF TODAY



AI IS MAKING INROADS IN FINANCIAL SERVICES

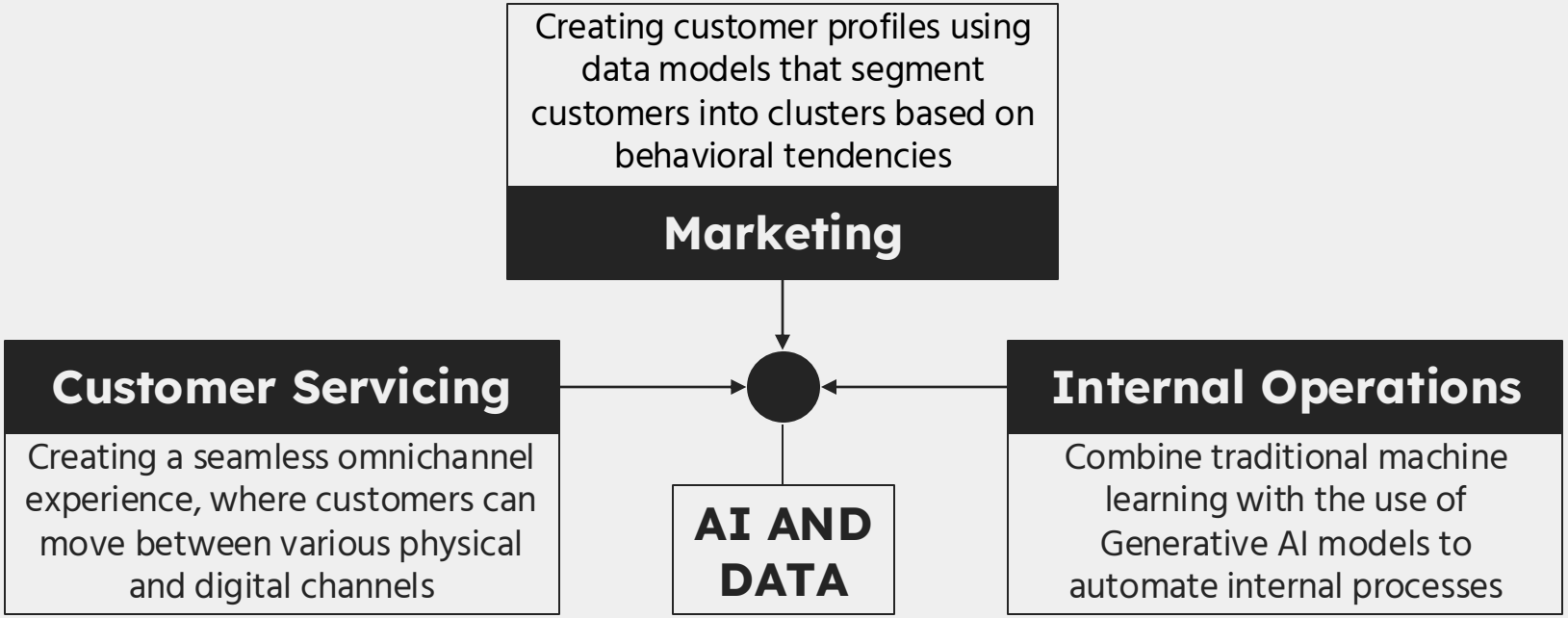
DATA, DATA, DATA

- AI use in the finance industry has increased year after year, proving to reduce costs and improve customer experience.
- Data has become an exceedingly valuable commodity in financial services



*Source: Software Oasis

WAYS TO IMPLEMENT ‘FINANCIAL INTELLEGENCE’





02

DEFINING CAPITAL ONE STRATEGY

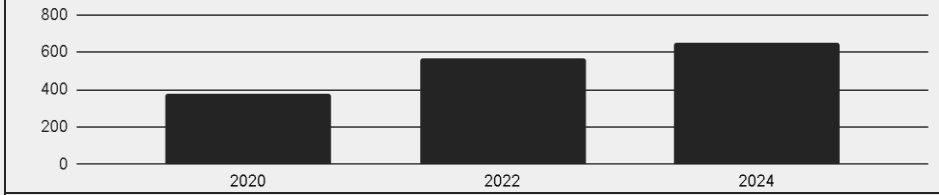
CAPITAL ONE IS AN ANALYTICS GIANT IN 2025

MARKET CAP	$77B

DIVISIONS	3

BRANCHES	75

SUSTAINED CARD VOLUME GROWTH ($B)



With the help of digital tools, Capital One has seen sustained growth across product lines

CUSTOMER FOCUS

☐ Low ☐ Medium ☒ High

Ranked #1 National Bank in Customer Satisfaction by JD Power

MARKETING EMPHASIS

Invested **$4 billion towards marketing** in 2023

MARKET LEADER IN ANALYTICS

First in industry to adopt data-driven approach

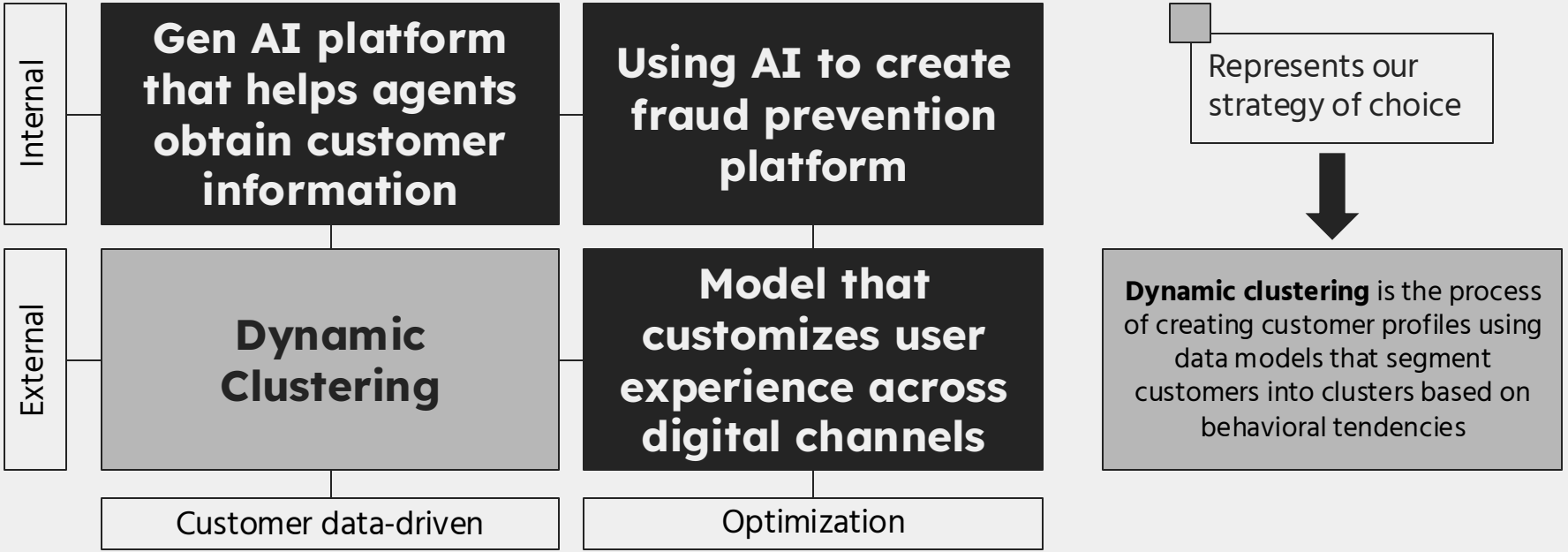
DISCOVER ACQUISITION MID 2025

Expected to **acquire Discover** for $35.3 billion

INNOVATIVE OFFERINGS

Expanding existing and growing new products

COMPARING AI-DRVEN STRATEGY TO PAST STRATEGIES



Source: Forbes

WHY DYNAMIC CLUSTERING?

1

IMPATIENCE ECONOMY

The evolution of the modern dynamic consumer has highlighted the affinity to be influenced by positive digital content

2

CUSTOMER FOCUS

Dynamic clustering ensures users receive tailored assistance, which aligns very well with Capital One's customer-based emphasis

3

OPERATIONAL EFFICIENCY

AI automates data analysis, within customer segmentation. By clustering, Capital One can optimize marketing to the right groups



03

OUR APPROACH

WHERE AND HOW WE PLAN TO IMPLEMENT CLUSTERING

DYNAMIC CLUSTERING

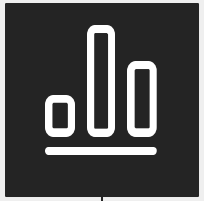
LINE OF BUSINESS- TRAVEL PORTAL

- Travel planning involves **high volumes of research** and decision making
- **Staying competitive** with travel services like Expedia, Google Travel and Hopper who have all implemented AI.
- **Synergy** with other Capital One products

HOW WE PLAN TO IMPLEMENT- CHATBOT

- **Intuitive and customer friendly** concept that can be seamlessly integrated with products
- Quicker solutions than traditional research or call center based solutions
- Ability to create **conversational space** with customer

DEFINING KEY OBJECTIVES



Leverage Data

Creating customer profiles and segment customers into buckets based on their behavioral tendencies



Personalize products

Using data driven insights to optimize ML capabilities and provide personalized offerings to travelers



Create Partnerships

Improve overall customer experience by developing partnerships with external stakeholders of product

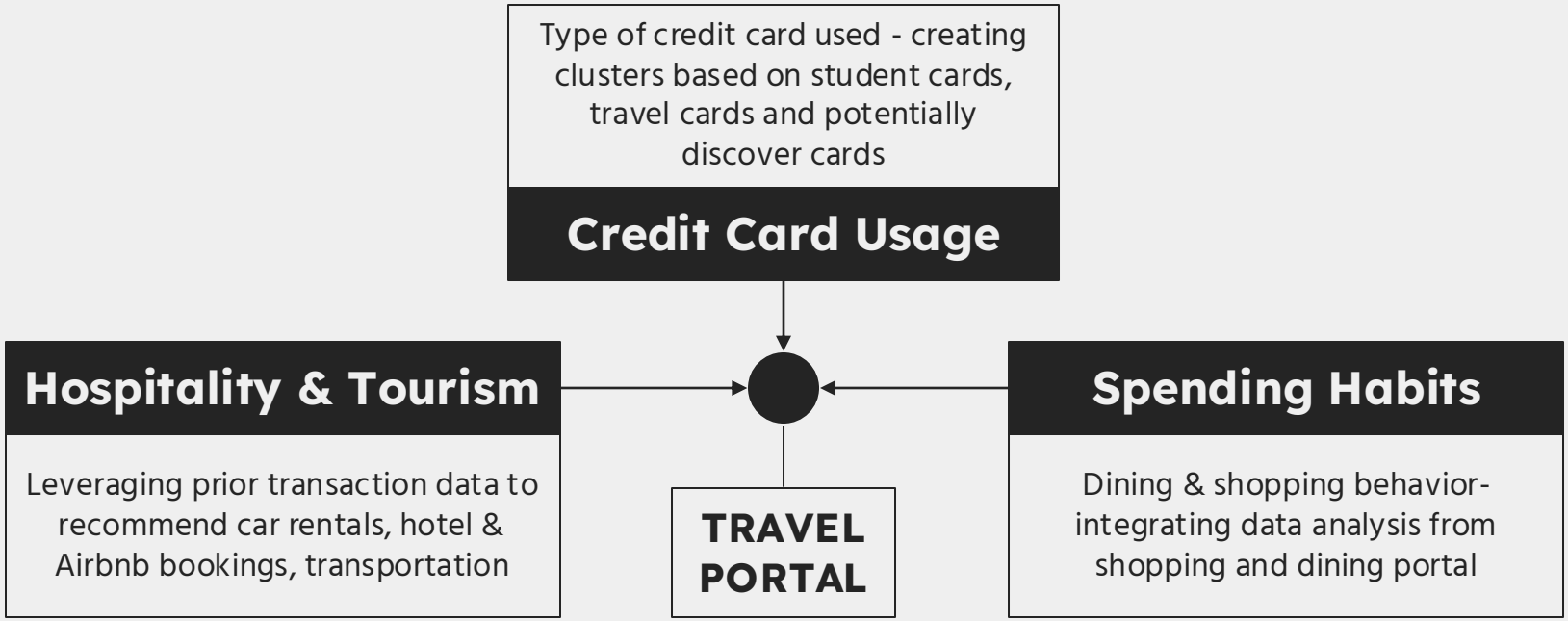
OUR APPROACH ON THE BUSINESS SIDE

WHAT DOES THE STRATEGY LOOK LIKE?

DYNAMIC CLUSTERING

METHOD	RISKS	MITIGATION
Develop **loyalty programs** based on cluster analysis	Customers may not behave as analysis suggests	Create performance-based contract with external party
Cross selling other products from product line	Customers may not be inclined to engage	Identify disinterested customers and adapt model
Collaborating with travel partners to sell products	Overspending on marketing- may not reach all involved	Allow users to provide feedback on suggestions

WHAT TRAVELLER METRICS CAN WE LEVERAGE?



BUILDING A USER-FRIENDLY CHATBOT

CAPITAL ONE TRAVEL CHAT BOT

CLUSTERING & RECOMMENDER SYSTEMS	SENTIMENT ANALYSIS	FRAUD DETECTION
Customer Segmentation	User feedback processing	Ensuring data security
Personalized Travel Suggestions	Real-time segmentation	Risk Monitoring

CUSTOMER PROFILE #1- LUXURY BUSINES TRAVELLER



NAME	Pranav
AGE	34 Years
JOB	Consultant

Location: San Francisco, CA

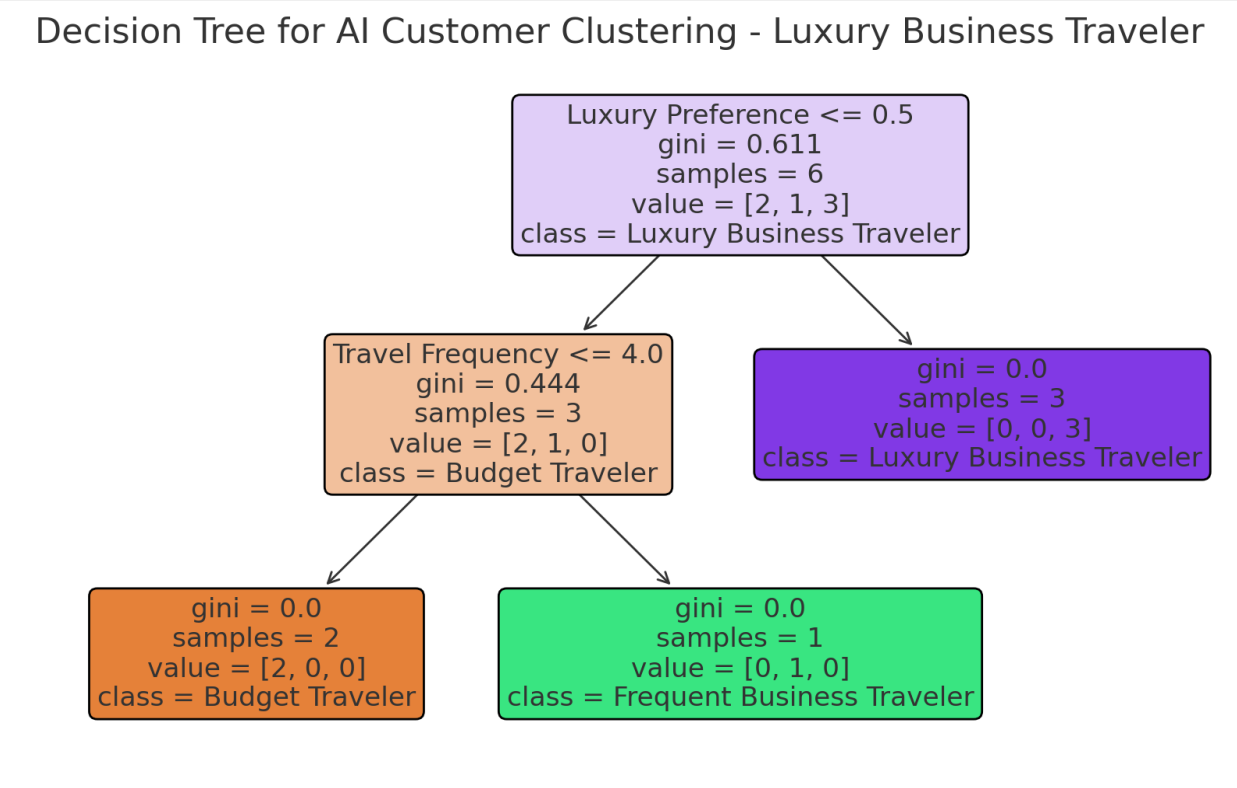
Annual Income: $120,000

Travel Preferences: Luxury & Experiential Travel, Prefers Business Class, Loyalty Program Member (Delta, Marriott Bonvoy)

Spending Behavior: Uses Capital One Venture X for travel purchases, books premium stays, values flexible booking and concierge service

Past Travel Data: Frequent trips to Europe & Asia, solo and business travel mix, prioritizes dining experiences and cultural activities

HOW AI ENHANCES PRANAV'S EXPERIENCE



CUSTOMER PROFILE #2- BUDGET FRIENDLY TRAVELER



NAME	Alex
AGE	29 Years
JOB	Designer

Location: Austin, TX

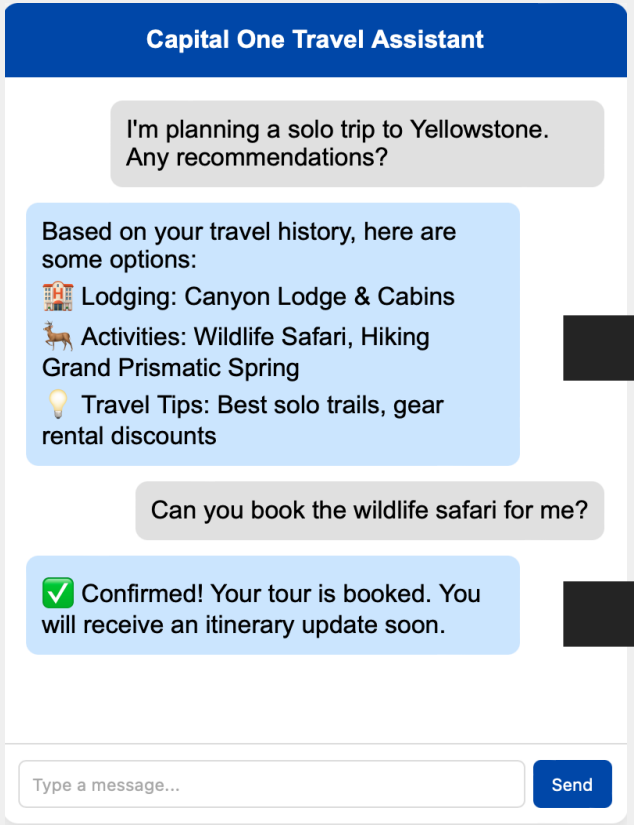
Annual Income: $70,000

Travel Preferences: Budget-friendly adventure travel, prefers economy class, frequent traveler to national parks

Spending Behavior: Prioritizes cost-effective travel, uses Capital One Quicksilver for cashback on travel expenses

Past Travel Data: Frequent domestic travel to national parks, road trips, and eco-lodges

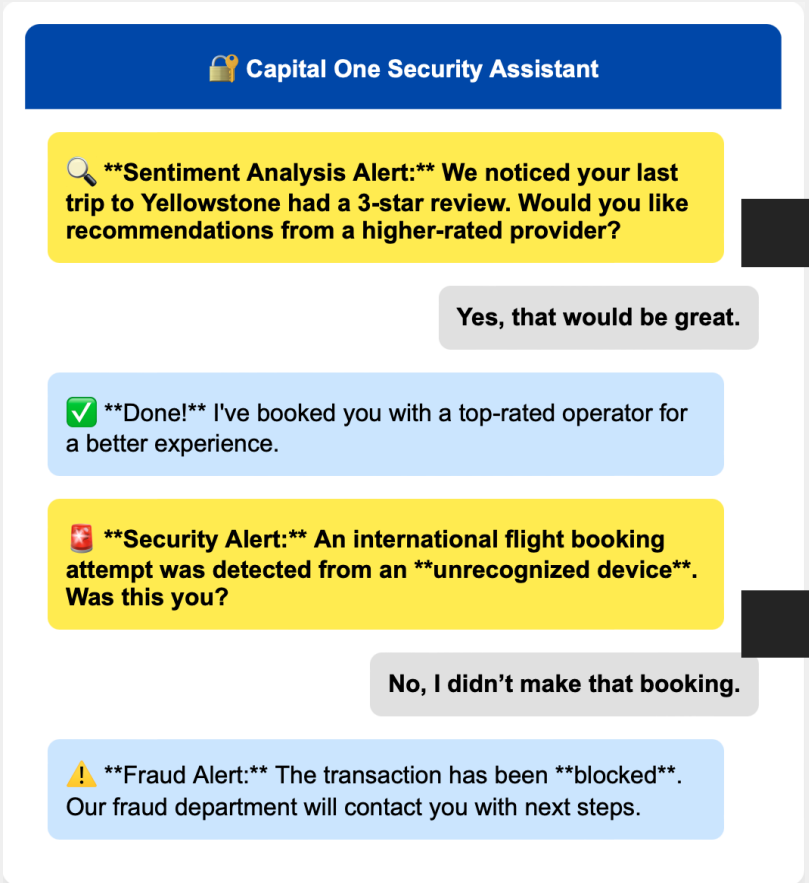
ENHANCING ALEX'S CONFIDENCE WITH AI



Personalized Travel Suggestions- Interactive chatbot response that provides users with relevant travel options

Quick and proactive responses to customer requests

ENSURING SMARTER AND SAFER TRANSACTIONS



Sentiment Analysis

Fraud Detection



04

IMPLEMENTING CHANGES

SIMILAR IMPLEMENTATIONS BY THE NUMBERS:

$30 million

Bank of America Erica AI Chatbot cost

$5 million

Yearly cost of scaling Uber AI system

$1-3 million

Yearly infrastructure cost- Netflix AI

$50 million

Expedia AI total cost with multiple models

*Sources: Bank of America, Business Insider

ESTIMATING PROJECT COSTS

FORECAST PERIOD						
CRITERIA	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
COSTS						
BUILDING MODEL	$2M	-	-	-	-	-
DATA SECURITY	$500K	$500K	$500K	$750K	$750K	$750K
API AND PORTAL INTEGRATION	$1M	-	-	-	-	-
OPERATIONS AND SUPPORT	$1M	$2M	$2M	$2.5M	$2.5M	$3.5M
MARKETING	$2M	$2M	$2M	$2M	$2M	$2M
TESTING AND FEEDBACK	$2M	$2M	$2M	$2M	$2M	$2M
TOTAL	$8.5M	$6.5M	$6.5M	$7.25M	$7.25M	$8.25M

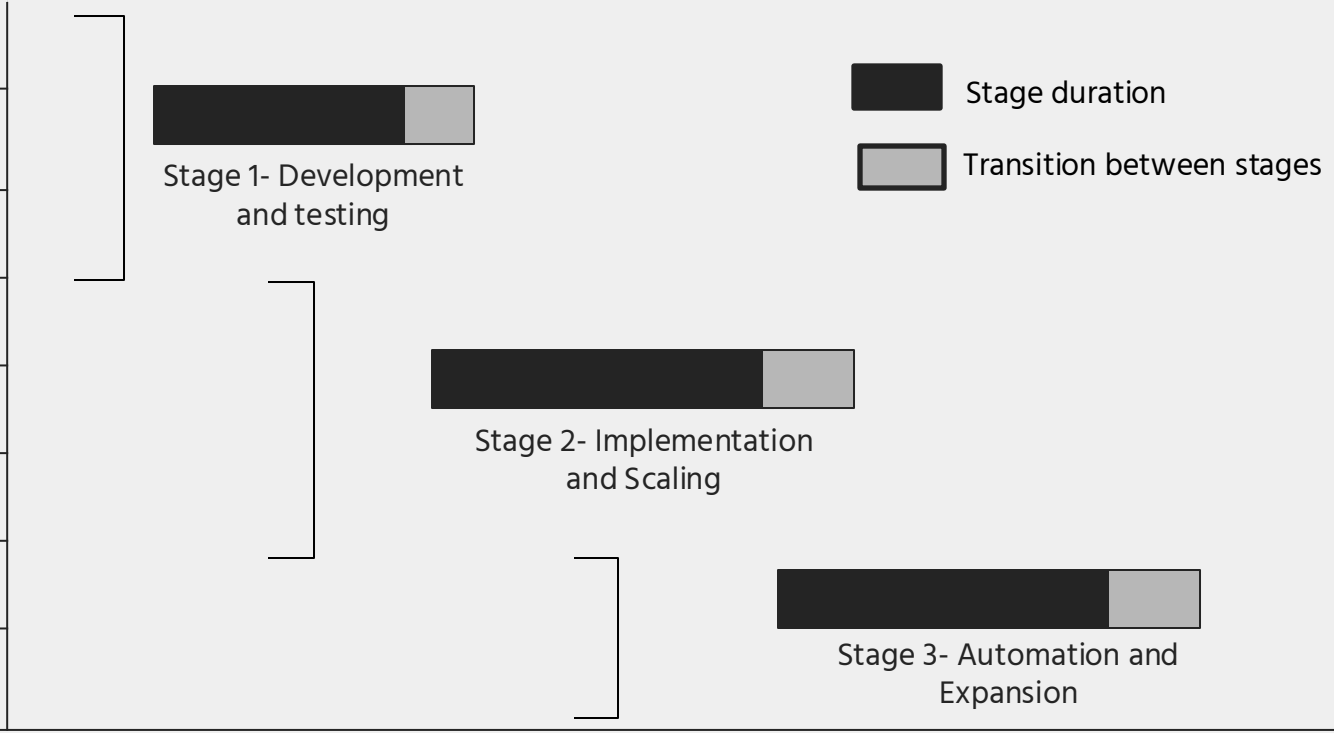
HOW WE WOULD COMPARE TO OTHER BANKS

Feature	Amex Concierge	Chase Ultimate Rewards	Our Strategy
AI-Powered Personalization	Luxury concierge but **no AI-driven personalization**.	Expedia-based booking with **limited AI customization**.	Uses **AI-driven clustering** to recommend **tailored travel** options based on user behavior.
Smart Travel Planning & Chatbot	Human concierge **less scalable and slower**.	No AI-driven chatbot for trip planning.	**AI chatbot** provides **real-time itinerary adjustments**, suggestions, and automated trip planning.
AI-Optimized Rewards & Cost Efficiency	Focuses on **luxury services, not cost savings**.	Good rewards program but **lacks AI-driven optimization**.	**Most personalized & data-driven travel experience** vs. luxury-focused Amex & rigid Chase rewards.

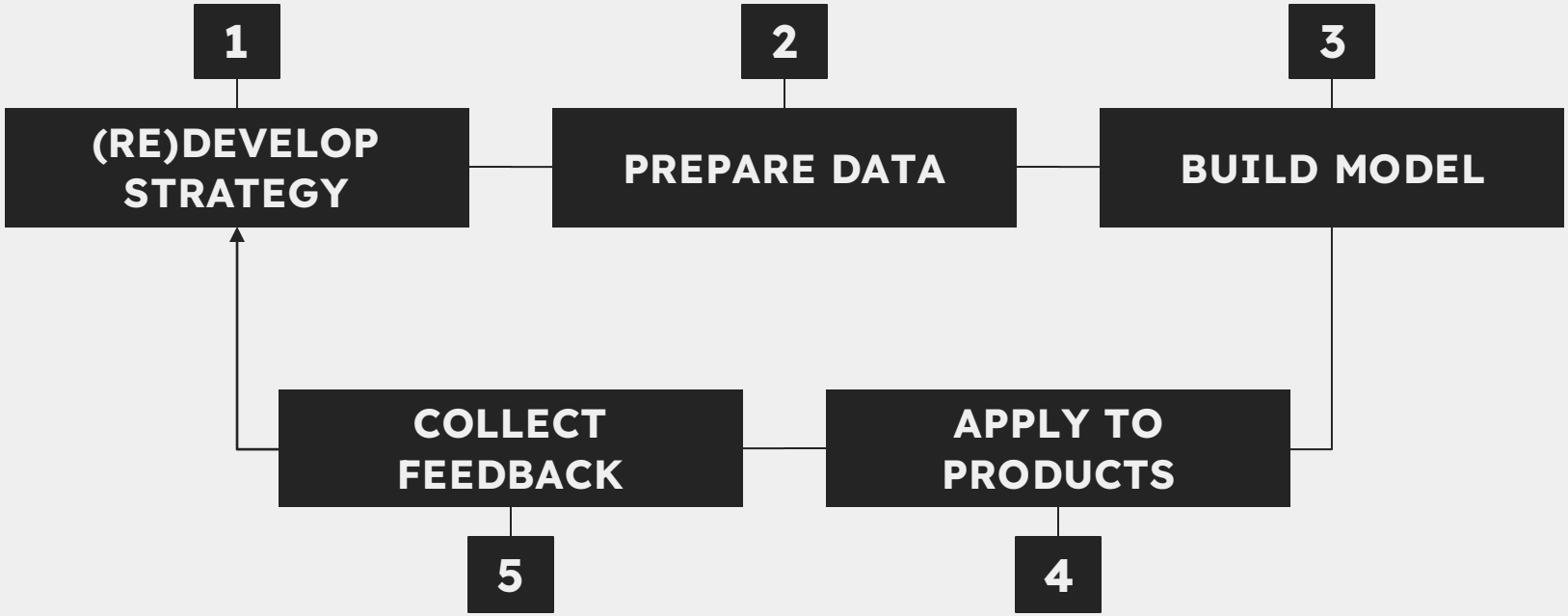
*Sources: Tech Bullion, chase.com

ENVISIONING THE ROAD TO 2030

STEPS	2025	2026	2027	2028	2029	2030
1. Develop clustering model prototype						
2. Develop infrastructure and data security procedures						
3. Test prototype - internal and a few external users						
4. Launch pilot and aggressively market						
5. Expand data sources and optimize performance						
6. Implement real time segmentation and scale						
7. Implement to other products like dining portal						
8. Develop self-learning model that anticipates user needs						



DEFINING CYCLIC PROCESS OF MAINTAINING MODEL



RISK MANAGEMENT THROUGH EACH STAGE

STAGE	RISK	MITIGATION METHOD
Develop Strategy	Legal and Data Security Risks	Data management plan outlining informed consent and accessibility
Prepare Data	Bias based risks	Integrate user feedback from and retrain pervious iterations of model
Build and apply model	Performance and technical risks	Implement mechanisms where humans can step in on high-risk suggestions
Collect Feedback	Financial and customer based risks	Create post-purchase cancellation, return and switching options
	Adoption based risks	Develop method for customers to see why AI made certain suggestions

SUMMARIZING OUR RECOMMENDATIONS

	METHOD	BUSINESS	INITIAL STEPS	THINKING LONG-TERM
LEVEL	1	2	3	4
FOCUS	CLUSTERING	TRAVEL	CUSTOMER EXPERIENCE	AUTOMATE AND SCALE
DESCRIPTION	- Divide customers into segments - Create tailored suggestions - Expand on existing AI infrastructure	- Develop chatbot for travel portal - Create loyalty programs and partnerships - Prepare travel data from internal sources	- Develop sentiment analysis and fraud detection - Implement clustering that adapts to behavioral changes	- Move towards self learning chatbot and grow to other products - Develop dynamic pricing mechanisms

THANK YOU

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