



Reimagining Retail Banking: How to Revolutionize CX with Generative AI

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Generative AI holds immense potential for productivity gains for financial services

\$200-340B

value potential in Banking

9-15%

increased productivity of the Banking industry's annual operating profits



Productivity Gains



Customer Service

+30-45%
of current servicing costs



Software engineering

+20-45%
of current annual spending



Marketing

+5-15%
of total marketing spend



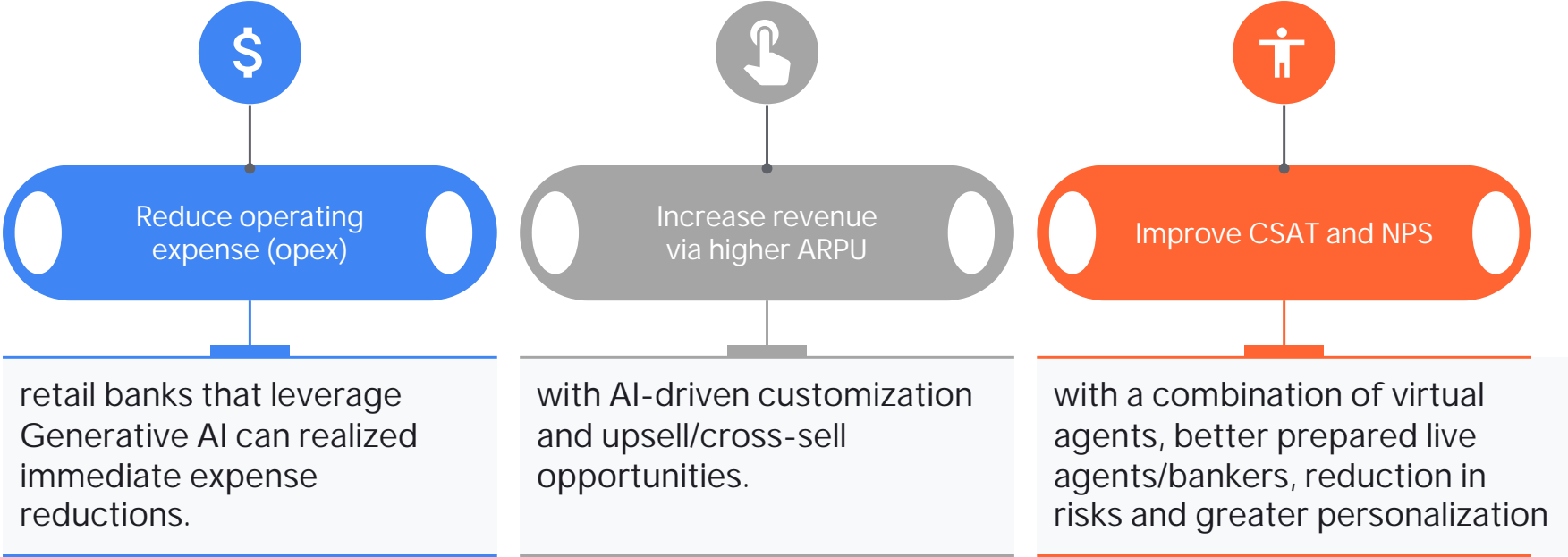
R&D

+10-15%
of overall R&D costs



Source: "Economic potential of GenAI" McKinsey, 2023

Generative AI creates a better customer experience at a fraction of the cost



Banking's Gen AI Trinity:

Scalable AI Platform

World-Class LLMs

Human Ingenuity

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Gemini

Next-Generation Model

Gemini marks the next phase on Google's
journey to making
AI more helpful for everyone

- Natively Multi-modal including text, code, images, audio and video
- Better understanding and reasoning across modalities
- Expanded context window (up to 1 Million Tokens)

Scalable Generative AI Platform



It takes more than just a model to drive business value with GenAI

- Ease of Use and Accelerated Development
- Model Garden for Pre-Trained Models
- Customization and Fine-Tuning
- Scalability and Reliability
- Responsible AI Features
- Develop and deploy production ready applications
- Integration with greater tech ecosystem (i.e. Cloud)
- Continuous Innovation

Human Ingenuity fuels AI Innovation



Google's mission is to organize the world's information and make it universally accessible and useful

- *We care a lot about how technology can affect people's lives. No doubt jobs will shift, as they always have. But many jobs will be complemented by these technologies, and entirely new jobs we can't imagine today will be created as well.*
- *Responsible AI remains a top priority at Google, and we are continuing to invest in the teams that work on applying our AI Principles to our technology.*
- *We published our own AI Principles in 2018 focused on fairness, safety, privacy and accountability, and we've also shared detailed guidelines and tools to empower others to use AI for good. Additionally, we consistently have ethical AI / ML reviews to ensure we are keeping pace with this rapidly changing industry*
- *AI needs to be regulated – it's too important not to. We strive to be a helpful and engaged partner to regulators, offering our expertise, experience and tools as we navigate these issues together.*

Revolutionize Experience, Not Just Service

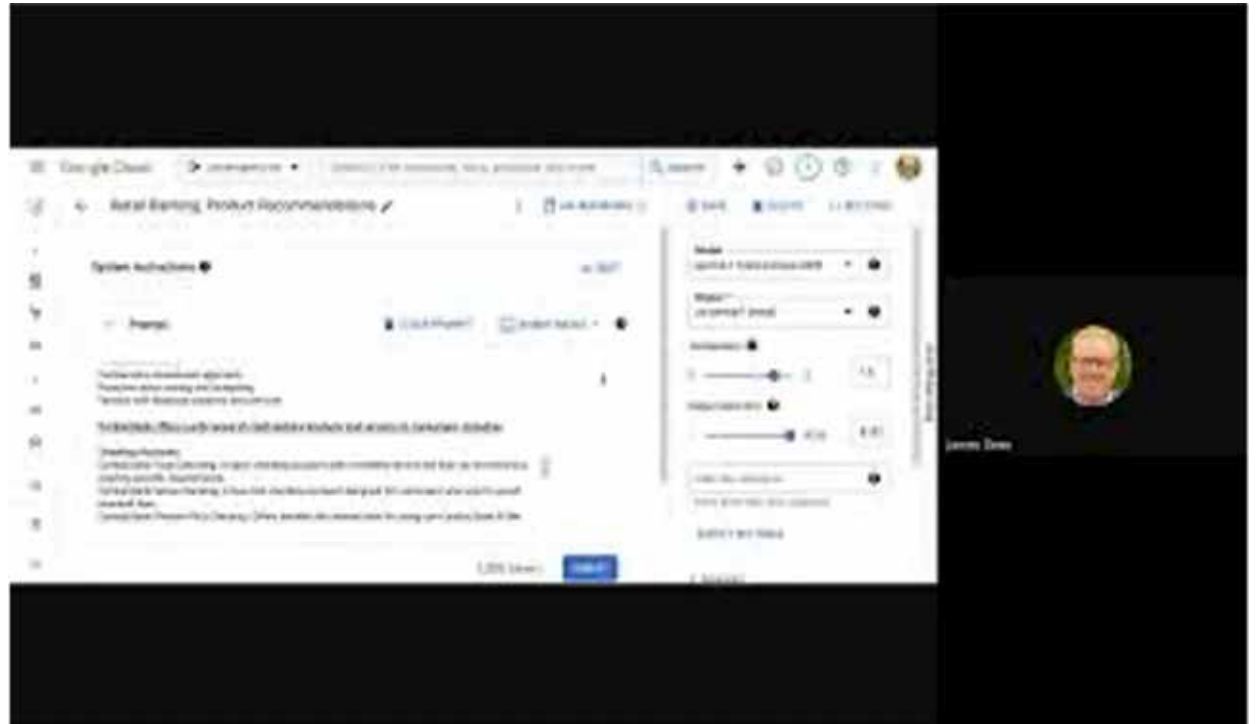
Use Cases that will Transform the Customer Experience

- Personalized Financial Advice and Product Recommendations
- Virtual Agents and 24/7 Customer Support
- Fraud Detection and Prevention Systems
- Seamless and Intelligent Customer Onboarding and KYC Processes
- AI-Powered Content Generation for Marketing and Engagement

Gemini: Product Recommendations Demo

Retail banks can utilize generative AI to analyze vast amounts of customer data to deliver hyper-personalized product recommendations tailored to each individual's unique needs and preferences.

- **Enhanced Customer Profiling:** Generative AI can analyze customer transaction history, spending patterns, financial goals, and demographics to create detailed customer profiles, enabling banks to offer highly relevant product recommendations.
- **Proactive Customer Engagement:** Generative AI can anticipate customer needs based on their financial behavior, proactively offering relevant products and services, like personalized discounts, targeted promotions, or early alerts for potential financial risks.



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Retail Browsing Product Recommendations

System Instructions [View](#)

Product: [View](#) | [Add to cart](#) | [Add to wishlist](#)

Product description and details.

Product details and specifications.

Product reviews and ratings.

Product recommendations.

1,234 items

1,234 items



James Davis

Hyper-Personalized Financial Advice

Generate intelligent summaries of relevant documents with sourcing provided, helping analysts focus their time on the most important information.

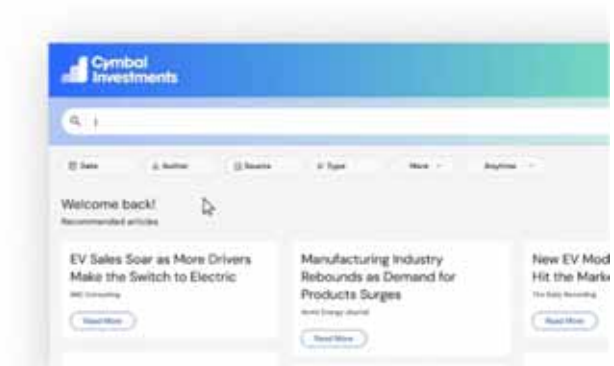
Example: Gen AI can explore topics with natural language, assist in sentiment analysis, and aggregate financial data

I need to assess the semiconductor industry



Investment manager

Example only



Summarized view of research from internal and external data sources

Generative AI can help transform customer service across engagement models to deliver four benefits:

1

Boost agent & **employee** productivity

2

Improve self-service & deflection rates

3

Modernize chat & voice infrastructure

4

Enhance insights & customer predictions



Generative AI improves self-service experience & deflection rates

Virtual agents enhance retail banking customer experience by providing:

- 24/7 immediate support for common inquiries and basic transactions.
- Personalized interactions through data analysis and tailored recommendations.

Generative AI

Resolve credit card concerns faster with Gen AI

Google Cloud





James Dowd

Virtual Agent and 24/7 Customer Support



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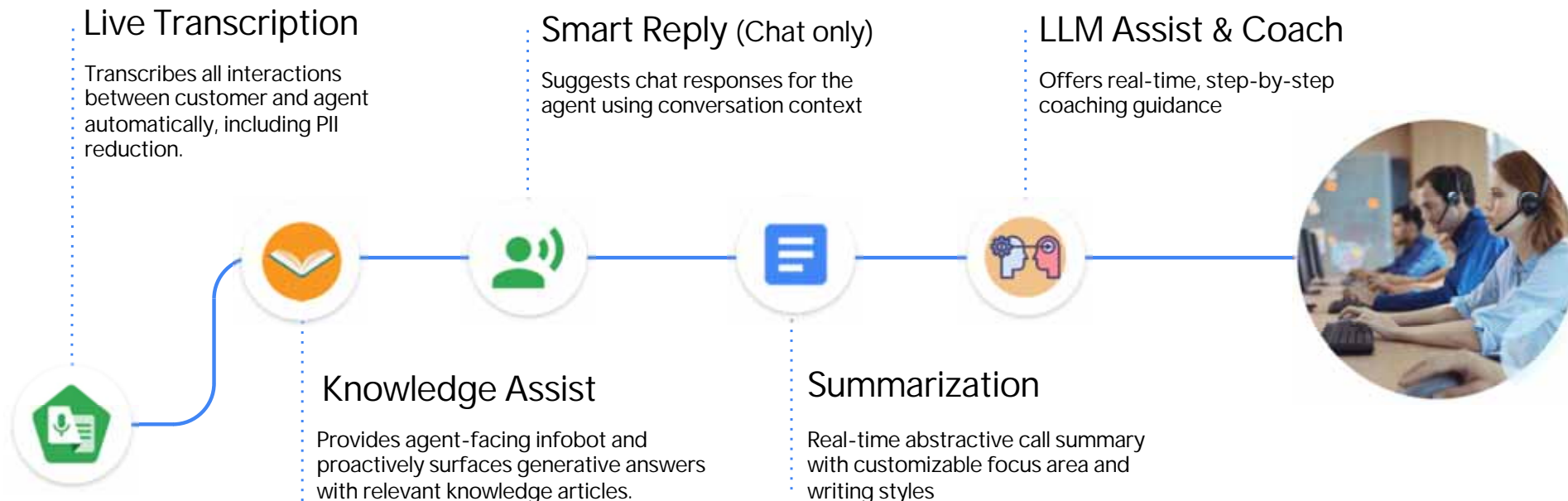
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2024

The screenshot shows the Google Cloud AI Studio interface for a project named "Wells Fargo Video Analysis". The main area displays a "Generate" button with a "2,884 tokens" indicator. Below this, a "Response" section shows a text output: "The video is an advertisement for Wells Fargo's new virtual assistant, Fargo. It demonstrates Fargo's capabilities in simplifying daily banking tasks." To the right, configuration options are visible: "Model" is set to "gemini-1.5-pro-preview-0809", "Region" is "us-central1 (Columbus)", "Temperature" is a slider set to 1, and "Output tokens limit" is a slider set to 8192. A "Show settings" link is on the far right. In the bottom right corner, a video feed shows a person with the name "James Dow" below it.

Agent Assist

AI empowers human Agents to be more productive and provide better service, by providing in-the-moment assistance

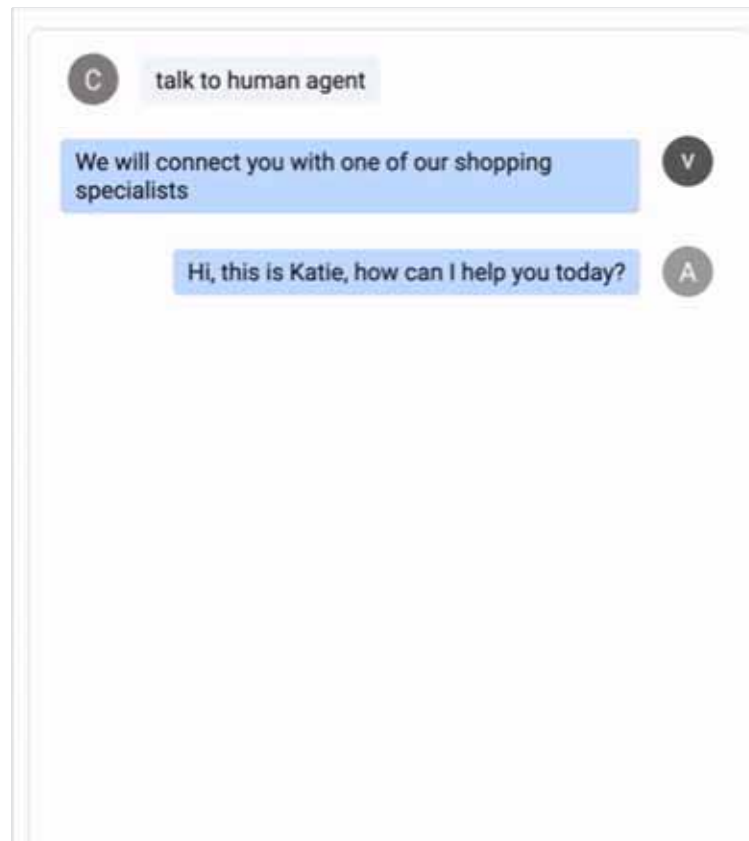




Live Transcription

Key Benefits

- Useful as captions
- Improves agents' comprehension of, attention to, and memory for the conversation, especially for non-native speakers, hard-of-hearing audio streaming, noisy environments.
- Provides agents the ability to check previous information from the call.
- Can be sent to customer as a reference
- Could be stored the transcription in a CRM for further lookup.





LLM Knowledge Assist Agent-facing infobot

What it does:

- Semantic search
- Provides answers based on doc content (FAQ, docs, websites, pdf, etc.)
- Real-time use of agent/customer conversation context (Q3'23)
- Proactively suggest queries or answers (Q3'23)

Benefits:

- Extractive and generative capabilities
- Short answer snippets from long docs
- Answer snippets that agents can use as responses

Agent answers

Is the Piermont chair sustainably made?

Q&A

All products in the Piermont line use recycled velvet and the frames are made from FSC-certified wood.

Sustainability (p6, para 12)
At Cymbal, we care deeply about the future. T...
[docs.cymbalfurniture.com/guides/cymbalcare](#)

Sustainability (p6, para 12)
At Cymbal, we care deeply about the future. T...
[docs.cymbalfurniture.com/guides/cymbalcare](#)

What does that mean about the wood?

From knowledge

I couldn't find the answer on this website, but I know this from my world knowledge:
- FSC-certified wood is wood that has been certified by the Forest Stewardship Council (FSC). FSC-certified wood comes from forests that are managed in a way that protects the environment, respects social and cultural rights, and ensures the

Ask a question

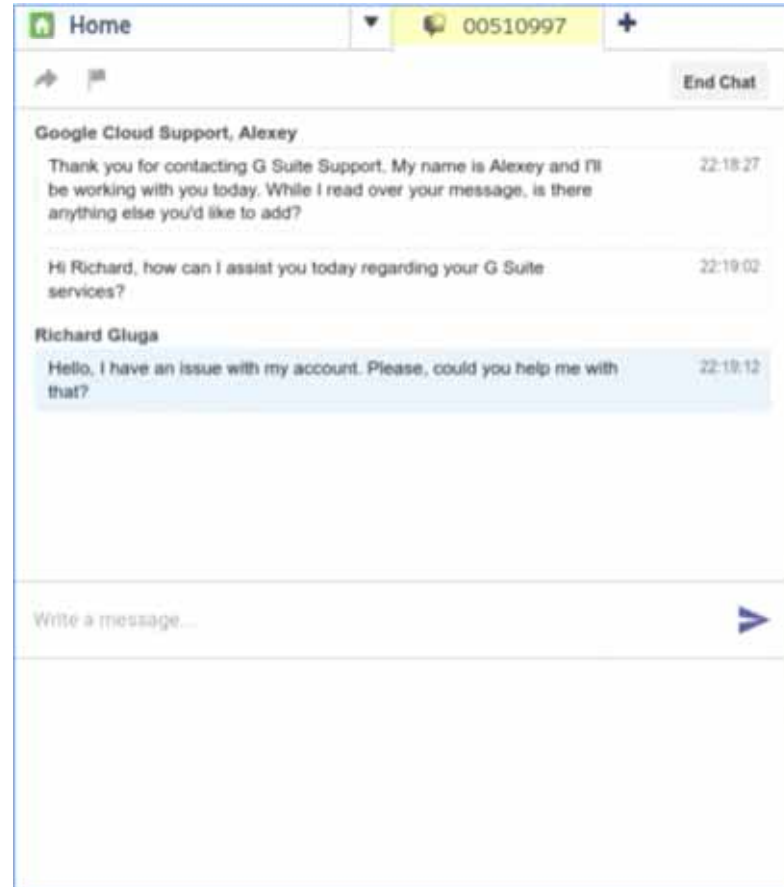


Smart Reply

Smart Reply predicts what the agent should say next, based on the conversation context and your historic data.

Key benefits

- Reduces time to respond to customer messages
- Helps agents maintain context across multiple conversations
- Personalization: Increase agents' use of the suggested responses



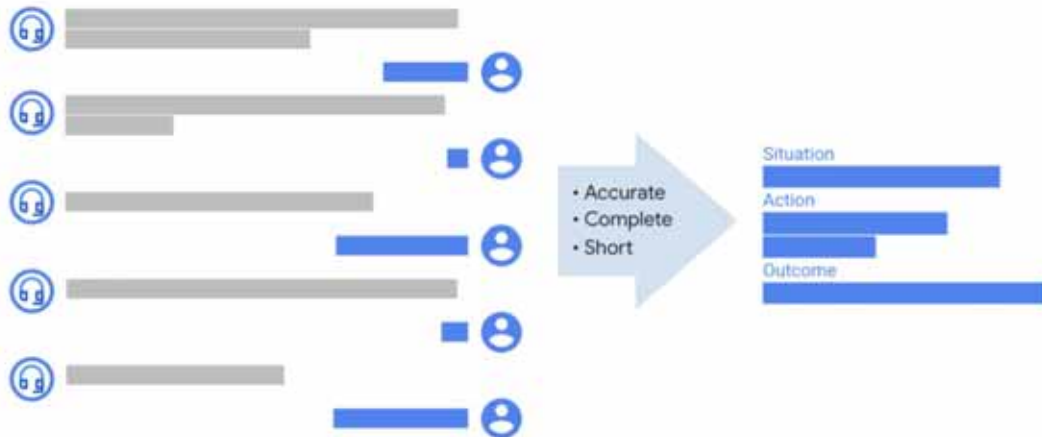


LLM Summarization

Support bot and human conversation summaries

Key benefits

- Help agents understand customers' request and previous conversation with call summary
- Suggest summary draft at the end of a conversation; help agents to write better formatted summary with much less effort





LLM Assist & Coach

Allows you to self-define prompts

- Compliance/Behaviour Coaching
E.g., Authentication; AHT watcher
- Task-oriented Coaching
E.g., Troubleshooting
- Upsell & Cross-sell
E.g., Plan upgrading

Agent Training Cost is High

1. Onboarding Training cost is high (\$7500 per agent, 1-3 mos)
2. Turn-over rate is high. (30-45% yearly; *Agent Churn in 6-12 mos*)

Gaps between high performing and average performing agents are huge.



Generative AI-powered Dynamic Risk Profiling and Fraud Detection

Generative AI can significantly enhance the customer experience in retail banking by streamlining legitimate transactions, expediting approvals, and enabling personalized service.

- **Reduced Friction:** By continuously analyzing customer behavior and transaction patterns, AI can adapt security measures in real-time, minimizing the need for intrusive authentication for low-risk activities.
- **Faster, More Accurate Decisions:** AI can rapidly assess risk and identify fraudulent activity, leading to faster loan approvals, quicker transaction processing, and fewer false declines.
- **Personalized Banking:** By understanding individual customer preferences and risk profiles, AI can tailor product recommendations, credit limits, and service offerings to each customer's unique needs.



Google Cloud | Credit applicant analysis: Anomaly Detection

Credit applicant analysis: Anomaly Detection

View | Refresh | Settings

View | Refresh | Settings

Anomalies, Inequalities, and Bad Plays in Car Loan Applications

The right data visualization is essential to get the most out of your data. This dashboard provides a comprehensive overview of your data, including a table of anomalies and a chart of trends.

ID	Category	Value	Description
1	Category	High value	Category
2	Category	Medium value	Category
3	Category	Low value	Category

Table

Chart

Settings

- Time range: All time
- Refresh: 1 min
- Chart type: Line
- Y-axis: Values
- X-axis: Time
- Legend: Category

Seamless and Intelligent Customer Onboarding and KYC Processes

Document Analysis and Data

Extraction: Implement a Generative AI-powered document upload feature that does the following:

- Accepts various identity document types (passports, driving licenses, applications etc.).
- Extracts relevant data from these documents using image recognition and text analysis techniques (e.g., name, address, date of birth).
- Flags inconsistencies or discrepancies for further review.



The screenshot displays the Google Cloud console interface. At the top, the browser address bar shows the URL: `https://console.cloud.google.com/project/PROJECT_ID/locations/LOCATION_ID/services/STANDARD%20%26%20CLASSIFICATION%20(SOP)%20Customer%20Subscriptions`. The main content area is titled "STANDARD & CLASSIFICATION (SOP) Customer Subscriptions". Below the title, there is a detailed description of the service, including its purpose and key features. A "Get started" button is visible. On the right side, there are various configuration options, including a "Region" dropdown set to "us-central1", a "Service" dropdown set to "STANDARD", and several sliders for "Throughput" and "Capacity". At the bottom, there is a "Resources" section with a "Help" button.



AI Banking of the Future

2023
 Investment in AI and automation is accelerating, driven by
 industry, regulatory, and customer



Category	Key Insights
Investment	AI and automation investment is accelerating, driven by industry, regulatory, and customer factors.
Regulation	Regulatory requirements are driving AI adoption, particularly in risk management and compliance.
Customer	Customer expectations for personalized and efficient services are driving AI adoption.

Projected annual total AI investment for global banking will reach \$14.5 billion in 2024

Estimated annual total AI investment



AI investment by region (USD Billion)



Source: International Monetary Fund, Global Financial Markets Report, 2023

2023

Banks are expanding their use of AI technologies to improve customer experience and back-office processes



Front-Office	Back-Office
<p>AI-powered chatbots for customer service</p>	<p>AI-powered risk management and compliance</p>
<p>AI-powered fraud detection and prevention</p>	<p>AI-powered loan origination and underwriting</p>
<p>AI-powered personalization and recommendation engines</p>	<p>AI-powered document processing and data extraction</p>

ACTION ITEM #1

Identify high-impact use cases that benefit the customer

ACTION ITEM #2

Establish ethical AI
guidelines

ACTION ITEM #3

Invest in AI talent and training



Questions

?

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Thank you!

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