Customer Service at a Breaking Point

Why modern banks are struggling to keep up

High demand- Limited capacity - Strict compliance

The Cost of Poor Service

Why the current system is failing banks and customers.

🕐 The Expectation Gap

Customers expect instant, accurate support. Long wait times lead directly to frustration and abandonment.

$ The Financial Burden

Live-agent interactions cost banks **$4 – $7 each**. Scaling this model is unsustainable.
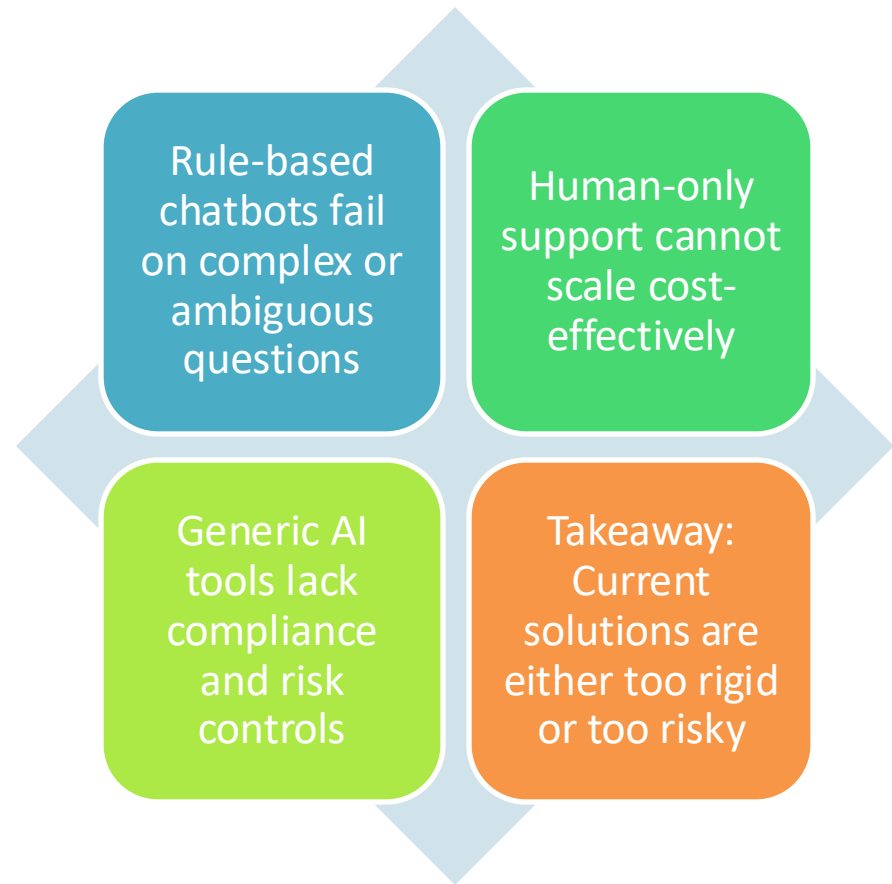
The Bottom Line ⚠️

- ❌ High customer churn (loss of business)
- ❌ Eroded brand trust and reputation

Takeaway:
"Inefficiency doesn't just annoy customers; it actively drains the bank's revenue."

Why Traditional Solutions Fall Short

Rule-based chatbots fail on complex or ambiguous questions

Human-only support cannot scale cost-effectively

Generic AI tools lack compliance and risk controls

Takeaway: Current solutions are either too rigid or too risky

Our AI Solution: SmartAssist AI

- Understands complex questions
- Generates Human-like responses
- Natural Language Processing

1 **Generative AI Engine**

2 **Compliance 1st Design**

- Built for regulations
- Every response verified
- Audit Trails
- Data Protection

- Supports – Doesn't replace
- Handles routine tasks
- Escalates complexity
- Empowers agents

3 **Agent Augmentation**

The solution: Intelligence + Safety + Partnership

System Architecture

System Flow

- Customer Query (Chat / App / Web)
- Intent Detection & Risk Scoring
- Retrieval-Augmented Generation (RAG)
- Compliance & Policy Checks
- Response Generation
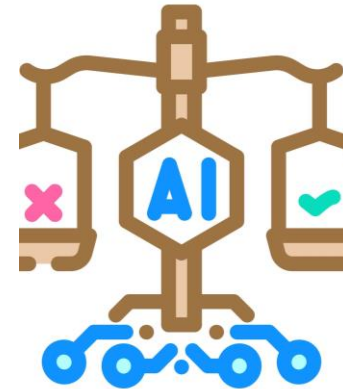- Human Escalation (When Needed)

Design Principles

- Uses verified data only
- Compliance-first by design
- Human-in-the-loop for high-risk cases

Key Trade off's Considered

When designing this generative AI solution for finance, we carefully evaluated several key trade off to ensure the system is both effective and responsible."

- **accuracy versus response time**.
  Faster AI responses improve usability, but they may reduce the depth of analysis. On the other hand, slower processing allows for more accurate and detailed financial insights. To balance this, the system provides quick summaries by default, with the option for deeper analysis when needed."

- **privacy versus personalization**.
  Personalization works best when the system understands a user's financial history, goals, and preferences—but that data is sensitive. To handle this safely, we use guardrails like role-based access and policy limits, so users get helpful, tailored insights without risky or unauthorized advice."
  scalability versus complexity.
  As the system scales to support more users and data sources, technical complexity increases. This is managed through modular design and phased deployment, ensuring the system remains stable and maintainable."

"The goal wasn't just to build smart AI—but to build AI that finance teams can actually trust."

Compliance and Security

Encryption

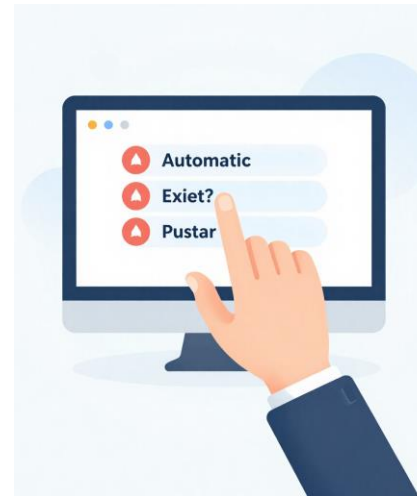**Essential for safeguarding data confidentiality.**

Access Control
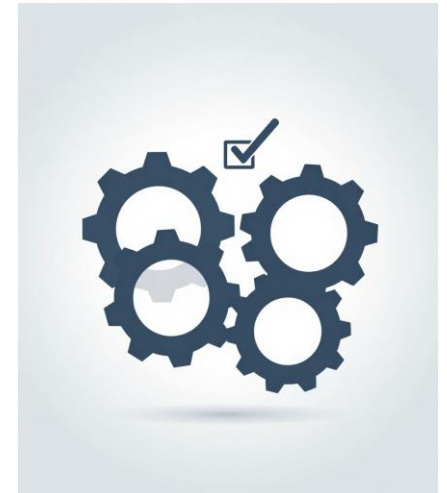
Protects sensitive information through roles.

Escalation

Ensures timely human intervention when needed.

Compliance

Embedded in every aspect of operations.

Business Benefits

FASTER CUSTOMER RESPONSE

- Instant AI-driven support
- 24/7 availability across channels

REDUCED OPERATIONAL COSTS

- Lower call-center volume
- Fewer routine cases handled by agents

HIGHER SATISFACTION & TRUST

- Personalized, consistent responses
- Transparent and compliant interactions

IMPROVED AGENT PRODUCTIVITY

- Agents focus on complex, high-value cases
- Reduced burnout and turnover

Market & Users

Primary users: Customer service teams and contact centers

Core customers: Banks (retail & commercial), credit unions, fintech companies

End users: Account holders seeking fast, compliant support

Financial Viability

- SaaS subscription-based pricing model
- Significant reduction in annual service costs
- Return on investment within 6–12 months
- Takeaway: Scalable and profitable solution

Implementation Plan

Phase 1

Limited pilot deployment

Phase 2
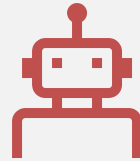
Expand to additional service use cases

Phase 3

Continuous optimization with human oversight

Key Takeaway: Safe and controlled rollout

References

Course materials on Generative AI

Industry articles on Retrieval-Augmented Generation (RAG)

Financial AI compliance and governance sources

Questions?

Thank you.