

Ai Customer Support for Financial Services

SlidesCorner

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BUSINESS NEED/ OPPORTUNITY

What is the business problem or opportunity?

- Managing customer queries efficiently is a major challenge for financial institutions, as they receive thousands of inquiries daily related to accounts, loans, transactions, and investments. Traditional customer support systems struggle with high volumes, long wait times, and operational costs.
- By leveraging Generative AI, banks can deploy AI-powered chatbots and virtual assistants to provide 24/7 automated support, instantly resolving common queries, reducing human workload, and enhancing customer satisfaction. This solution not only improves efficiency but also enables personalized financial guidance, creating a smarter, cost-effective customer service experience.

BUSINESS NEED/ OPPORTUNITY

Unmet Need & Customer Demand

Customers expect instant, accurate, and 24/7 financial support, but traditional banking support systems often fall short due to long wait times, limited availability, and high operational costs. Many queries, like checking balances, tracking transactions, or applying for loans, are repetitive and can be automated.

By using Generative AI-powered chatbots, banks can provide real-time assistance, reduce response times, and offer personalized financial insights.

This is especially valuable for:

- **Retail Banking Customers** – Need quick access to account details, transactions, and support.
- **Loan & Credit Card Applicants** – Require instant guidance on eligibility, interest rates, and document submission.
- **Investors & Wealth Management Clients** – Seek tailored financial advice based on their profiles.

This AI-driven approach enhances customer experience, reduces service costs, and helps banks scale operations efficiently.

BUSINESS NEED/ OPPORTUNITY

Importance of Addressing This Need

Failing to address this need can lead to customer dissatisfaction, high operational costs, and lost revenue for financial institutions. Long wait times and inefficient support can push customers to competitors offering better digital experiences.

By implementing AI-driven customer support, banks can:

- ✓ **Enhance Customer Experience** – Provide instant, accurate, and 24/7 support.
 - ✓ **Reduce Costs** – Minimize dependency on large human support teams.
 - ✓ **Improve Efficiency** – Automate repetitive queries, allowing human agents to focus on complex issues.
 - ✓ **Boost Customer Retention & Loyalty** – Faster issue resolution increases trust and engagement.
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- This solution aligns with the growing demand for smart, AI-powered banking services, ensuring financial institutions stay competitive in a rapidly evolving digital landscape.

BUSINESS NEED/ OPPORTUNITY

Value Created for Customers & Target Segment

Implementing AI-powered financial customer support provides significant value to both customers and financial institutions:

- ✓ **Instant & 24/7 Support** – Customers get real-time assistance anytime, reducing wait times.
- ✓ **Personalized Financial Guidance** – AI can analyze transaction history to offer tailored recommendations for loans, savings, and investments.
- ✓ **Simplified Banking Processes** – Users receive step-by-step guidance for loan applications, credit approvals, and account-related queries.
- ✓ **Multi-Channel Accessibility** – AI chatbots can be integrated into websites, mobile apps, WhatsApp, and voice assistants, making banking more convenient.
- ✓ **Faster Issue Resolution** – AI reduces human intervention for common queries, ensuring quick responses.

For financial institutions, this solution leads to cost savings, improved efficiency, and increased customer loyalty, making banking smarter and more accessible. 

TARGET SEGMENT/ MARKET SIZE

Target Segment

The intended customers for this AI-powered financial customer support solution include:

1. Retail Banking Customers

Individuals managing savings accounts, credit cards, and personal loans.

Need instant access to account details, transaction history, and financial assistance.

2. Loan & Mortgage Applicants

Customers seeking home loans, car loans, or personal loans.

Require quick eligibility checks, document submission guidance, and loan tracking.

3. Small & Medium Businesses (SMBs)

Entrepreneurs managing business accounts, payments, and credit lines.

Need real-time assistance with transactions, tax compliance, and financial planning.

4. High-Net-Worth Individuals (HNWIs) & Investors

Customers looking for investment advice, wealth management, and portfolio tracking.

Require AI-driven personalized financial recommendations.

TARGET SEGMENT/ MARKET SIZE

Market Size / Market Growth

The AI-driven financial services market is experiencing rapid expansion due to increasing digital adoption, automation, and customer demand for instant support.

✓ AI in Fintech Market Growth

- Valued at \$10.1 billion in 2023
- Expected to grow at a CAGR of 20%+, reaching \$50 billion+ by 2030

✓ Chatbots in Banking & Financial Services

- Expected to grow at 23% CAGR, reaching \$7 billion by 2030
- AI chatbots expected to automate 90% of customer interactions in banks by 2025

✓ Digital Banking Growth

- 3.6+ billion users globally by 2024, driving demand for AI-based automation
- 80% of banks are investing in AI-powered customer service solutions

✓ Cost Efficiency & ROI

- AI-powered automation in banking is projected to reduce operational costs by \$7.3 billion annually
- Faster adoption of AI-driven financial assistants leading to higher customer retention & satisfaction

Solution Idea

The solution revolves around AI-powered chatbots and AI agents that automate customer support for financial institutions. By leveraging Generative AI, web scraping, and AI agents, we aim to build an intelligent, scalable, and personalized customer support system.

- How It Works:

1 Web Scraping for Data Collection

- Extract financial rules, FAQs, and procedures from various bank websites.
- Use this data to train an open-source AI model (e.g., LLaMA, Hugging Face models).

2 Generative AI Chatbots & AI Agents

- AI chatbots provide instant answers to common customer queries (account balance, transactions, loan status, etc.).
- AI agents handle complex queries by guiding users through banking processes like loan applications and investment advice.

3 Personalized Customer Support

- AI analyzes customer transaction history to offer tailored financial recommendations.
- Ensures a human-like, interactive experience with multi-channel support (web, mobile, WhatsApp, etc.).

4 Integration with Banking Systems

- Secure API connections to retrieve real-time account data.
- AI models continuously learn from user interactions for improved accuracy.

Key Differentiators (Unique Selling Points - USP)

Our AI-powered financial support solution stands out due to its:

✓ 1. AI Agents for Complex Financial Tasks

Unlike traditional chatbots, our AI agents can handle multi-step banking processes like loan applications, investment advice, and compliance checks.

✓ 2. Web Scraping for Dynamic Knowledge Updates

The system continuously extracts and updates banking rules and policies from various bank websites, ensuring real-time accuracy without manual updates.

✓ 3. Personalized Financial Insights

AI analyzes customer transaction history to offer tailored financial recommendations, such as spending advice, savings plans, or loan eligibility tips.

✓ 4. Cost-Effective & Scalable

- Reduces operational costs by automating repetitive tasks, minimizing human customer support workload.
- Can be easily scaled across multiple banks, financial institutions, and digital platforms.

✓ 5. Faster Time to Market

- Uses pre-trained open-source models (LLaMA, Hugging Face, etc.) for quick deployment.
- Easily integrates with banking APIs for real-time data access.

✓ 6. Multi-Channel & Seamless UX

Available via web, mobile apps, WhatsApp, and voice assistants, ensuring convenient and seamless customer interactions.

Use Cases for AI-Powered Financial Customer Support System

- **1. Basic Customer Queries (Handled by AI Chatbot)**
- ✓ **Check Account Balance** – Customers ask for their account balance, and the AI chatbot fetches real-time data from the bank system.
- ✓ **View Recent Transactions** – AI chatbot retrieves and displays the last few transactions.
- ✓ **Track Loan Status** – Customers check the status of their loan applications.
- ✓ **Find Nearby ATMs/Branches** – AI provides location-based suggestions.
- ✓ **Update Personal Information** – Customers can request updates (e.g., address change) via chatbot, which routes the request to the bank system.
- **2. Complex Financial Tasks (Handled by AI Agents)**
- ✓ **Apply for a Loan** – AI agent guides the user through loan eligibility checks, documentation, and application submission.
- ✓ **Get Personalized Investment Advice** – AI analyzes transaction history and suggests suitable investment plans.
- ✓ **Plan Savings & Budgeting** – AI recommends monthly savings based on user spending habits.
- ✓ **Credit Score Analysis** – AI retrieves and explains the user's credit score with improvement suggestions.
- ✓ **Fraud Detection Alerts** – AI identifies suspicious transactions and alerts users.
- **3. Bank System Interactions**
- ✓ **Secure Authentication** – AI verifies customer identity through multi-factor authentication.
- ✓ **Real-time Data Fetching** – AI retrieves account details, loan details, and transaction history.
- ✓ **Document Verification for KYC** – AI scans and verifies submitted documents against bank records.
- **4. Web Scraping & Continuous Learning**
- ✓ **Dynamic Policy Updates** – AI scrapes bank websites to keep its knowledge base updated.
- ✓ **Compliance & Regulatory Updates** – AI ensures financial advice aligns with the latest banking rules.



Solution (DEMO)

Ai Customer Support for Financial Services

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Ask a question about your subject:

i like to apply for home loan which bank would be better and what;

You: i like to apply for home loan which bank would be better and what in the procedure

Solution Idea

AI: 🌟 Hello! I'd be happy to help you with your home loan query.

Your query falls under the category of **3 Loan & Mortgage Assistance.**

To proceed, could you please confirm a few details?

1. What is your preferred loan amount?
2. What is your current income and occupation?
3. Do you have a preferred bank or location in mind for the home loan?

Once I have this information, I can provide you with a step-by-step process for applying for a home loan, check your eligibility, and even compare interest rates from different banks.

Some of the top banks for home loans in India are:

HDFC Bank SBI Home Loans ICICI Bank Axis Bank

Ai Customer Support for Financial Services

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Ask a question about your subject:

I see an unauthorized ₹10,000 transaction. What should I do?

You: I see an unauthorized ₹10,000 transaction. What should I do?

AI: I see that you've noticed an unauthorized transaction of ₹10,000. I'm here to help you with that.

Your query falls under category **5 Security & Fraud Prevention.**

To assist you further, could you please confirm your account number or registered mobile number for verification?

⚠️ Immediate Actions:

1. **Freeze your card immediately** (Press 1 to block now)
2. **Contact the bank's fraud department** (1800-XXX-XXXX)
3. **File a dispute** (Would you like to proceed?)

Please let me know which option you'd like to choose, and I'll guide you through the process.

Additionally, I'll need to verify your identity through a two-factor authentication process to ensure the security of your account. Would you like to proceed with the verification process via SMS or email?

Ai Customer Support for Financial Services

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Ask a question about your subject:

I want to invest ₹50,000. What are my options?

You: I want to invest ₹50,000. What are my options?

AI: 🤖 AI Response: You're looking to invest ₹50,000. That's a great step towards growing your wealth! 💰

To better understand your investment goals, could you please confirm a few details?

1. What is your investment horizon (short-term or long-term)?
2. What is your risk tolerance (low, moderate, or high)?
3. Are you looking for regular income or long-term capital appreciation?

Based on your inputs, I can provide you with personalized investment options. We have a range of investment products, including:

Mutual Funds Stocks Fixed Deposits Real Estate Investment Trusts (REITs)

Please let me know your preferences, and I'll be happy to guide you through the process.

Additionally, I can offer you a comparison of different investment

Roadmap

Month 1-2: Research & PoC Development

- ◆ Identify key financial queries and pain points.
- ◆ Develop AI chatbot using LLaMA & Streamlit.
- ◆ Implement web scraping for banking policies.
- ◆ Test AI with sample financial data.

Month 3-4: MVP Development & Testing

- ◆ Integrate AI agents for personalized recommendations.
- ◆ Add secure API connections for real-time financial data.
- ◆ Deploy beta version on Hugging Face Spaces / AWS.
- ◆ Conduct internal and limited external testing.

Month 5: Market Launch & Pilot Testing

- ◆ Soft launch with select banks & fintech firms.
- ◆ Gather real customer feedback & optimize AI responses.
- ◆ Improve chatbot accuracy & transaction handling.

Month 6: Full Release & Expansion

- ◆ Expand to multiple financial institutions.
- ◆ Implement multi-language support for wider reach.
- ◆ Optimize AI for regulatory compliance.
- ◆ Scale AI chatbot and AI agents for high-volume users.

Partnership Strategy: Banks & Fintech Companies

- ◆ Banks:
 - Collaborate with traditional banks to integrate AI-driven customer support.
 - Provide seamless query resolution and policy updates.
 - Improve customer satisfaction with 24/7 AI support.
- ◆ Fintech Companies:
 - Partner with fintech firms for advanced AI-driven financial insights.
 - Enable real-time transaction tracking and investment recommendations.
 - Enhance digital banking experiences with AI-powered assistants.
- ◆ Value Proposition for Partners:
 - ✓ Reduce customer service costs.
 - ✓ Increase user engagement and retention.
 - ✓ Improve compliance with AI-driven policy updates.
 - ✓ Provide a competitive edge with personalized financial guidance.

Can it be replicated with a similar customer in another industry/segment?

Cross-Industry Replication Possibilities

Yes! This AI-powered customer support solution can be adapted for various industries beyond financial services.

Potential Industries & Use Cases:

- ◆ **Healthcare** – AI-powered virtual assistants for patient inquiries, appointment scheduling, and medical insurance guidance.
- ◆ **E-commerce** – AI chatbots for order tracking, personalized shopping recommendations, and customer support.
- ◆ **Telecom** – Automated customer support for billing inquiries, network issues, and plan recommendations.
- ◆ **Education** – AI tutors providing instant answers to student queries, course recommendations, and academic support.
- ◆ **Legal & Compliance** – AI agents assisting with legal document analysis, contract verification, and regulatory compliance updates.

Scalability & Key Benefits:

- Reduces operational costs across industries.
- Enhances customer engagement with instant AI responses.
- Personalizes user experience with AI-driven insights.
- Ensures adaptability with industry-specific AI training.