FPT.AI
by FPT Smart Cloud

WHITE PAPER

Operate an Intelligent Call Center with Conversational AI

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Introduction

Contact center remains a “priority investment” for businesses to quickly and effectively serve customers. Exceedingly, the COVID-19 has led to a 300% increase in the number of customer queries in call center ascribable to social distancing. Simultaneously, call center operations face difficulties with limited human resources and top-down requirements to save costs and enhance productivity.

Amidst countless challenges, Artificial Intelligence (AI) has proven itself to be the key solution to sophisticated business problems, in which 79% of call centers expect to invest in this technology (Deloitte, 2021). Prominently, Conversational AI solution will help automate two-way interaction with customers, allowing human agents to focus on complex, valuable tasks.

This guide is established to provide an overview of next-generation contact center, integrated with best-in-class AI technologies. Our recommendations aim to help businesses reinforce customer service quality, optimize operations, and thus, generate more values for end-users and accelerate growth.

The viral interactive channel in Contact Center

Since 1950s, businesses have been perpetually investing in contact center to process customer queries, receive feedback, and promote products and services. Compared to traditional mailing, flyers, direct calls is the most expeditious method to approach and respond to customers.

At the present, the development of technology has motivated the establishment of new customer service methods, namely email or chat. According to Help Scout (2022), 76% of customers prefer contact centers to seek support, perhaps because it is quicker and more convenient than in-person meeting and texting.

The COVID-19 pandemic has shown us how critical the contact center is, in which, the quantity of calls grew by 300% (GEP, 2020). Social distancing has challenged in-person support. The sudden spike of calls has lengthened wait time when contacting support agents and, subsequently, increase the rate of hang-ups. All of these contribute to worsening customer service quality. The contact center is also placed in a passive position, putting pressure on its workers and operations. More importantly, customer satistifaction levels are declining remarkably, increasing the risk of customer

Call Center: Challenges & the new approach to grow

Current state of call center operations

In the digital era, a call center encouters challenges to fulfill the demand for "instant", meaningful interactions between a business and its end-customers.

Reported by Statista (2022), globally, the average rate of customer satisfaction for call centers has decreased by nearly 10 points during 2021-2022. Forbes further estimates that low-quality customer service has incurred a total loss of $75 billion each year (2021).

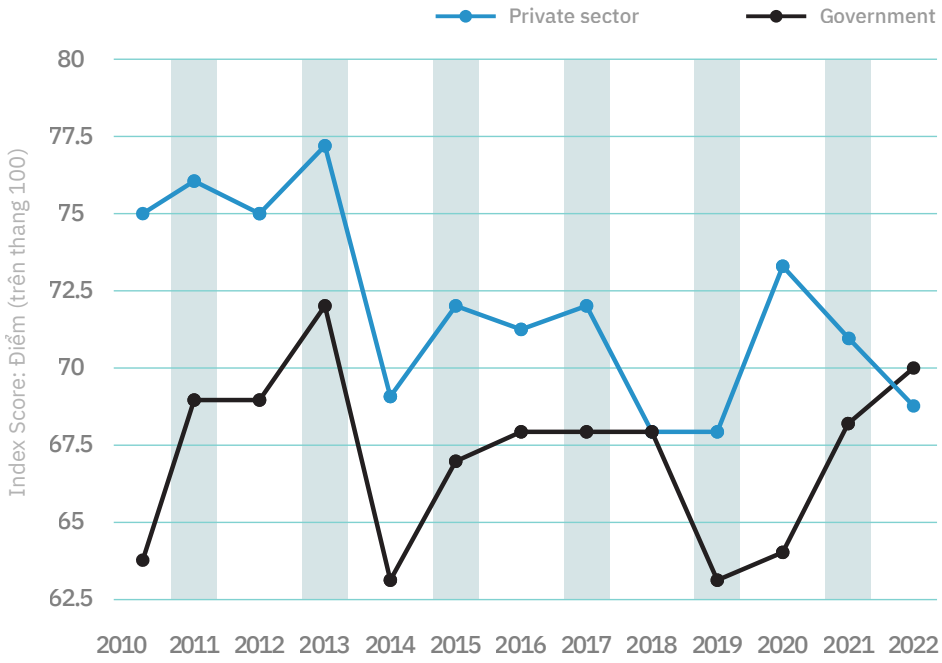


Figure 1. The global satisfaction rate for contact center (Statista, 2022)

A report by CX Today (2022) shows that 91% users realize service quality is diminishing in the second half of 2021. Particularly, 40% of customers complain about the wait time to connect to agents, which directly affect the capability to retain customers.

HubSpot (2022) states that, on average, each customer needs to hold 13 minutes to reach call agents. In reality, about 60% of customers will hang up after 10 minutes, and they will be more likely to leave the brand (Invoca, 2021).

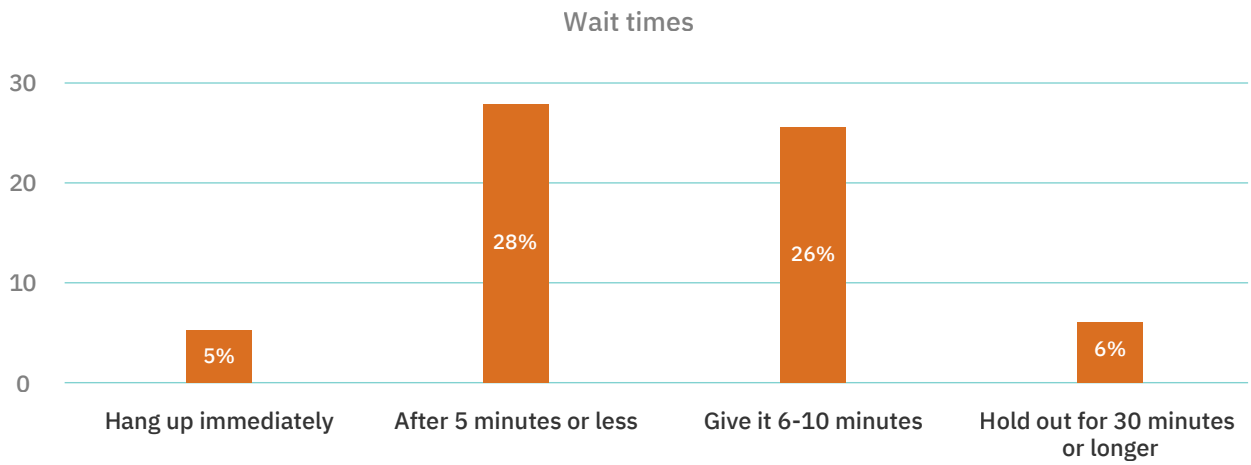


Figure 2. The rate of hang ups in correspondence with wait-time (Invoca, 2021)

Aside from increasing demands from customers, the contact center encounters various operatng challenges, especially quality assurance.

According to CCW (2022), the first priority of business leaders is saving operating expenses and increasing call center productivity. This has generally pressurized employees as this occupation has the highest turn-over rate of 40% (Small Biz Genius, 2022). Recruitment and training are more costly since a new employee needs at least 03 months to become an "expert" and execute best practices (McKinsey, 2022). Customer service quality, consequently, will be much unstable if the new employee has not yet fulfilled business standards, leading to a decrease in customer satisfaction.

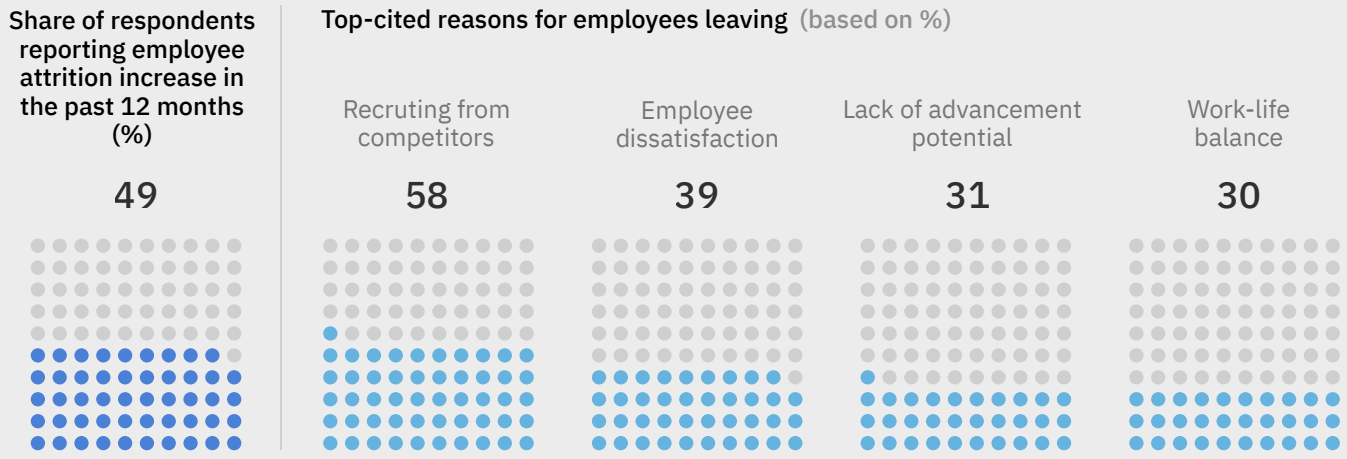
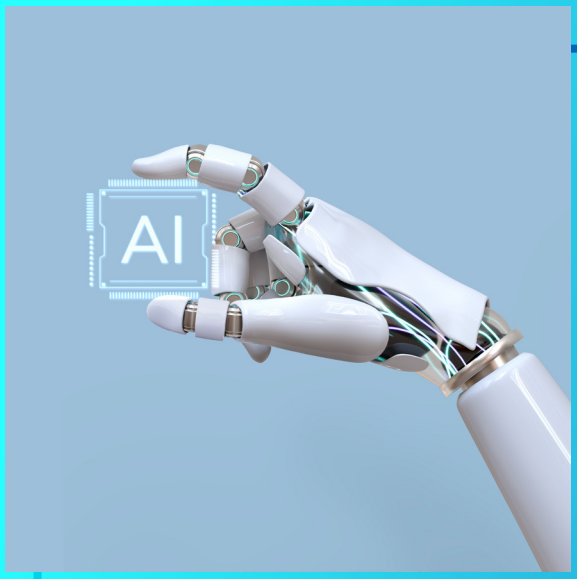


Figure 3: Top reasons for employee turn-over in contact centers (McKinsey, 2022)

A survey from Cornell University finds out that 87% of contact center agents reported high levels of stress, affecting their emotions and productivity, as well as service quality. In fact, stress can change an agent's voice and attitude toward customers, for instance, raising voice pitch, which easily make customers uncomfortable and dissatisfied. HP (2021) reports that a comfortable mood will allow employees to be 13% more productive than others.

Thus, it is imperative for businesses to optimize working processes and empower agents to perform more challenging tasks.



Technology: A must-have for businesses

Technology, especially Artificial Intelligence, is indeed the essential solution with its capability for quick deployment and astonishing, well-perceived benefits. McKinsey (2022) states that AI can automate up to 65% tasks in call center, extending space for agents to conduct more valuable tasks such as advising products, solving complaints.

Top AI applications in the call center

- Predictive Call Routing
- Interactive Voice Response
- Conversational AI
- Emotional Intelligence
- AI-Powered Recommendations
- Call Analytics

In particular, IVR (Interactive Voice Response) is popular for its easy integration, categorizing customers with phone keyboard and routing to suitable agents that can best support them: “Select 1 for card services, select 2 for loan services...”

Nevertheless, a survey by Vonage (2022) determines that 61% of customers reflect negatively on IVR. Here’s why:

Many irrelevant options	69%
Inability to describe the problem comprehensively	67%
Difficulty in connecting to agents	54%
Need to re-explain the problem	45%
Lack of human interactions	43%

Figure 4. Top reasons for customer dissatisfaction with IVR (Vonage, 2022)

Obviously, the IVR feature is not highly evaluated on effectiveness and convenience for users, not to mention making customer support more time-consuming.

The integration of Predictive Call Routing partly improve accuracy call routing, but agents still need to handle all queries. This demands more realistic technology solution to help decrease workloads of customer care.

The revolution of technology has created Conversational AI, completely transforming call center operations and customer experience. AI-powered bot will automatically handle customer queries with natural-sounding voice, seamless customer experience. Users no longer need to push buttons and wait, and agents are free from repetitive tasks. Conversational AI is also integrated with technologies listed in Figure 5: Predictive Call Routing, Emotional Intelligence, and Call Analytics.

CONVERSATIONAL AI

Amplify productivity in Call Center with **Conversational AI**

Integrated with Artificial Intelligence, Conversational AI allows automation of interaction with customers via messaging or calling. The solution includes 02 outstanding products: chatbot (automated messaging channel) and voicebot (automated voice-based channels). In contact center, voicebot helps agents to process repetitive tasks, which make up 80% of employees' working time everyday.

Outstanding benefits of Voicebot

- Eliminate wait times for customers
- Optimize operating expenses
- Offer seamless, consistent customer experience
- Increase revenue

Voicebot applies state-of-the-art AI technologies, allowing the Virtual Agent to behave with professional manners, comparable to an actual human agent:

- Natural Language Processing
- Active Learning
- Sentiment Analysis
- Speech Recognition
- Speech Synthesis

Based on human-machine augmentation model, voicebot and human agents interdepend with each other to optimize customer service. When a customer calls, voicebot will obtain customer information and find out his/her request. The conversation between Virtual Agent and customers will be recorded in real-time, allowing continuous, effective dialogue management and bot valuation. Normally, voicebot can easily handle up to 80% customer queries. For complex queries needed human agents to handle (i.e.: a customer complains with negative attitude), voicebot will immediately transfer the call to an adequate agent and, simultaneously, provide conversation history for agents to quickly grasp the context for continuous support.

Voicebot is capable of performing various tasks in call center, namely customer service, product/service advisory (telesales), and payment collection. These are also the three most popular tasks in finance, banking, insurance, and securities.

FPT.AI has developed and implemented Conversational AI for many businesses in Top 100 VN such as Vietcombank, Vietinbank, Dai-ichi, FE Credit, SSI...

01 Augment the quality of customer service

Customer service queries take up 80% of total calls proceeded by call center, including:

- **FAQs: card services, loan options, account management, promotions...**
- **Search information: location, interest rate, card information, contract status...**
- **Self service: card services (open, deactivate, change PIN), place/cancel an order, delivery information...**
- **Others: customer survey, broadcasting...**

Home Credit Vietnam
The next-generation call center for Finance

Home Credit Vietnam (HCVN) is in Top 2 Consumer Finance companies in Vietnam with more than 12 million customers. In 2020, the COVID-19 pandemic led to several dysfunctions in the business operations. The number of calls increased due to the effect of social distancing. HCVN further had to consolidate call center operation when agents were working remotely.

Admitting the challenges, HCVN selected Conversational AI, taking advantage of Artificial Intelligence to aid agents in customer service. The Virtual Agent will answer frequently asked questions (FAQs) and provide 24/7 support to customers.

- **Number of calls: 12,000,000+ calls/month**
- **Saved 60% expenses (for FTE and Telco)**
- **Customer satisfaction: 4/5**

Proven with success, Home Credit has expanded its voicebot capability to handle various tasks: debt collection, telesales, proactive customer service...

AI integration can help businesses automate up to 90% of customer service requests, and thus, human agents can focus on more valuable jobs, for example, telesales.

When a customer contacts, the Virtual Agent will take the call, asking customer information as well as his/her demand. Immediately, voicebot will extract data from gigantic "knowledge" hub, filtering the most relevant information to solve customer issues. The capability of voicebot is highly correlated to the number of integrated features chosen by businesses.

In specific domains including banking, insurance, and finance, voicebot – FPT AI Engage is integrated with in-depth domain knowledge, allowing voicebot to update data in real-time, providing the most adequate and accurate information for customers. Therefore, the Virtual Agent can automatically process a wider range of customer queries.

FWD - A case study of customer service in Insurance

In 2021, FWD has led the Insurance industry in Vietnam by integrating AI in the call center for customer service. Voicebot has made thousands of calls to customers in order to:

- **Reminder for insurance charges and method of payment**
- **Explain insurance contracts**
- **Provide information on payment status...**

Payment reminder is an exclusive feature for FWD customers. As they reach the call center, voicebot will answer immediately, helping them to solve issues quickly anytime.

Voicebot integration has improved productivity by 40%, allowing human agents to focus on more complex tasks:

- **Average number of calls handled by bot: 150,000+ calls/month**
- **Save 50% monthly costs (including FTE & Telco expenses)**
- **Rate of customer satisfaction: 85%**

02 Unlock the potential for telesales

In addition to customer service, voicebot can now support telesales, giving product/sevice recommendations based on a customer's usage frequencies or past transactions. This enables businesses to better personalize customer experience, resulting in an improved conversion rate of up to 8% and increased revenue (HubSpot, 2022).

Currently, telesales is time-consuming and requires a large amount of resources. Service Bell (2022) estimates that an employee needs to make an average of 100 calls per day. Such number of calls will lead to inconsistent customer support as the agent is heavily influenced by emotional and mental state. Furthermore, the business may need to recruit more telesale agents to reach more end-consumers.

Figure 5: An example of customer journey for telesales

Increase revenue with AI-powered Advisory Virtual Assistant

Voicebot in telesales is still a new feature in the Finance industry. In Vietnam, several companies have started to implement this innovation and obtain considerable outcomes.

Take a financial company for instance, it has integrated voicebot to help human agents make telesale calls on loans, cards, and overdrafts to customers and, at the same time, provide instruction to register for a card or a loan.

Prior to voicebot, the conversion rate is only 5%. After 2-month deployment, its call center has achieved outstanding effectiveness:

- **Total number of calls: 100.000+**
- **Conversion rate: 7,8%**
- **Revenue from voicebot: about 13 billion VND**

Collaborated with voicebot, call center can improve its operating productivity and sales effectiveness. While an agent can only connect to 100 customers per day, voicebot can automatically approach 100% of customer base, making thousands of calls in a short period of time. This eventually increases conversion rate for business.

Virtual agent can further assess and filter potential customers based on established criteria. Voicebot helps identify customer requirements and then, transfer customer data to agent for in-depth consultancy.

03 Reimagine debt collection processes with AI

Up to this point, debt collection remains a tremendous challenge for business. According to the State Bank of Vietnam, bad debt rate has dramatically risen to 7.31% (compared to 5.1% in 2020). Therefore, financial organizations are losing a huge amount of money each year. Additionally, the traditional model for debt collection is still costly, ineffective, and affecting negatively to the brand image, emerging customer complaints upon aggressive and threatening attitude of employees.

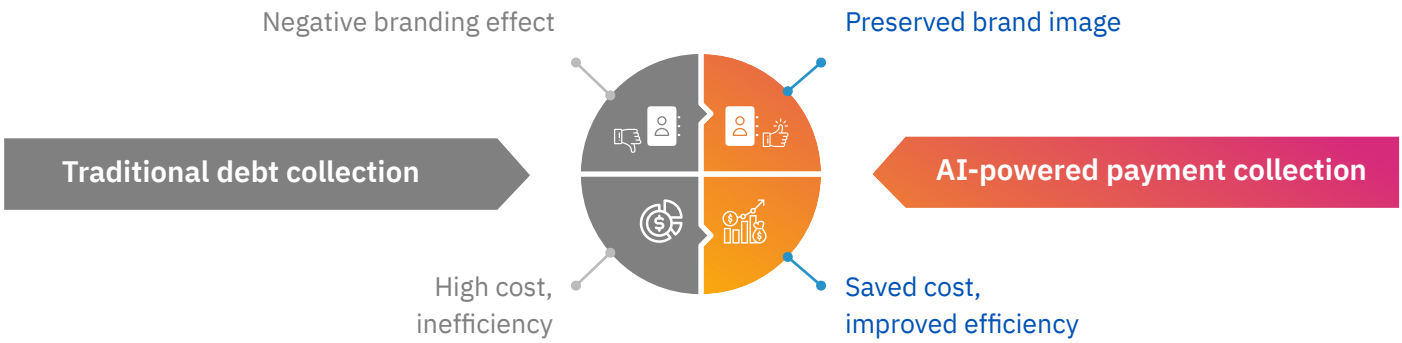


Figure 6. A comparison of traditional debt collection to AI-powered debt collection

Conversational AI has evolved to solve complicated tasks like debt collection in financial and insurance organizations.

Voicebot can make 03 different types of calls with time flexibilty for:

- **Payment reminder**
- **Pre-due collection**
- **Overdue collection**

Voicebot will initiate the call to remind payment and, at the same time, analyze the conversation with customers to determine payability (i.e.: on-time or not...), helping to identify potential bad debt. Pre-assessment of voicebot will then be sent to agents for next steps.

Furthermore, call center can take advantage of the "emotion control" capabilities of voicebot. The Virtual Agent will always maintain professionalism under any circumstances. It will also comply to scripts and tone of voice set by the business, thus, ensure brand consistency to customers.

Renovate debt collection with voicebot

Being one of top financial institutions in Vietnam, the company encountered obstacles in executing and managing debt collection with an increasing number of customers. As a result, the company decided to integrate voicebot into call center for debt collection.

Voicebot will automatically make calls with 03 main purposes: payment reminder, due reminder, and overdue reminder. This will help customers to be more attentive to their loans and enable agents to identify potential bad debts in a timely manner.

Remarkable results

- **Total number of calls: 450.000**
- **Rate of connected callls: 50%**
- **Rate of successful debt collection: 52%**
- **Average revenue: 97 billion VND**

Conclustion

In the upcoming time, AI applications such as Voicebot will take the lead to renovate the contact center for businesses. The Virtual Agent can help increase productivity by 80%, reduce expense by 60%, and improve customer experience much compared to the traditional call center.

Especially, in banking, finance, insurance, and securities, voicebot is the key to expediously solve business problems in terms of operations and customer satisfaction with its multi-tasking capability: serving customers, advising products and services, and debt collection.

About FPT.AI

FPT.AI is a leading provider for AI-powered solutions in the region, aiming to help businesses enhance customer experience, amplify productivity, save expense, and accelerate growth.

The comprehensive FPT.AI platform includes 04 main solutions:

Conversational AI

Automating two-way conversations with customers in messaging and call channels.

Intelligent Document Processing

Identifying and extracting data from structured, unstructured, or handwritten documents through automation

AI Contact Center Enhancement

Helping to holistically and automatically execute quality assurance in call centers

Digital Customer Onboarding

Improving efficiency and security for customer identification and authentication processes

FPT.AI is trusted to be a strategic partner of more than 100 enterprises in 02 continents and 15 nations across various sectors such as Banking, Finance, Insurance, Securities, Retail... Particularly, our AI solutions have enabled businesses increase productivity by 60%, optimize operating expenses by 40%, and provide transformative experience for more than 12 million end-users.

With our experience in implementing voicebot for leading BFSI enterprises in Vietnam, we are confident to accompany you and empower your digital transformation journey.

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