accenture

READY FOR
CONVERSATIONAL
BANKING?

**Making banks future ready with intelligent
Conversational User Interfaces**

INTRODUCTION

The exponential growth of Conversational User Interfaces (CUIs) like messaging apps, bots and voice-enabled devices has significantly impacted consumers lives and changed the way they live and act.

Conversation comes naturally to human beings and CUIs reduce cognitive load for customers - imagine asking Alexa / Siri / Google to play a song as against opening an app, searching for a song and then playing it.
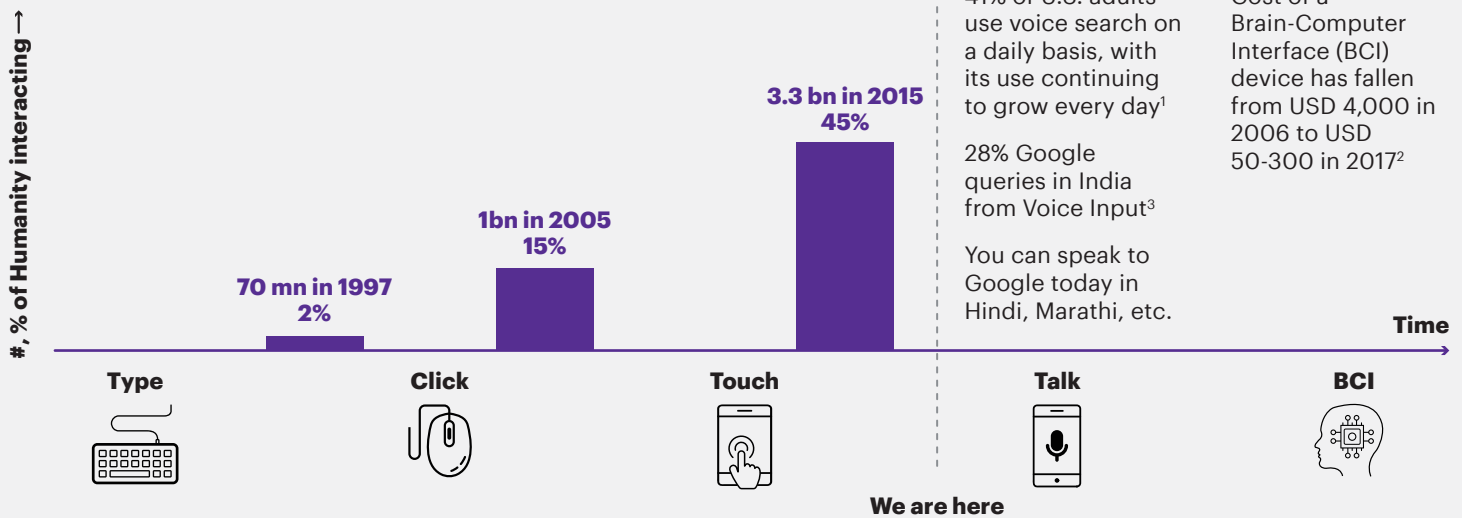
Banks in India have the opportunity to go beyond nascent chatbots and shift to AI-enabled conversational banking to simultaneously improve customer experience and reduce cost to serve.

This shift is not just a technology intervention but is an organization-wide new paradigm that requires new skills, new operating models and New IT.

As technology becomes inclusive (See Figure 1), and platforms such as WhatsApp, Skype and voice assistants become a popular way to interact, consumers expect the same experience in other areas such as insurance and banking. These expectations are spurring the use of AI-powered CUIs in banking. Designed as chat-based interfaces that are conversational in nature-CUIs can be backed entirely by humans or robots or a mix of both. In mature markets, CUIs have made banking services much more intuitive and intelligent at the same time – both to customers externally and to employees internally. CUIs are popular because they are designed for a more natural mode of human communication, using text or voice to engage in a dialogue rather than clicking and scrolling through content. CUI as a third channel of customer interaction-after telephone and mobile-comes after more than a decade of mobile banking that has left customers asking for more in terms of frictionless experiences. Indeed, in several markets, mobile banking has inherited poor experience features with cumbersome self-service for even the simplest transactions. Customers scroll through several screens and click on links to get to the right button. Furthermore, to their annoyance, customers often get information that is not relevant to their needs and goals.

Figure 1:
Increasing inclusiveness of technology

#, % of Humanity interacting →

70 mn in 1997
2%

1bn in 2005
15%

3.3 bn in 2015
45%

41% of U.S. adults use voice search on a daily basis, with its use continuing to grow every day[1]

28% Google queries in India from Voice Input[3]

You can speak to Google today in Hindi, Marathi, etc.

Cost of a Brain-Computer Interface (BCI) device has fallen from USD 4,000 in 2006 to USD 50-300 in 2017[2]

Time

Type   Click   Touch   Talk   BCI

We are here

Sources: Accenture
1 - https://www.forbes.com/sites/forbesagencycouncil/2017/01/03/2017-will-be-the-year-of-voice-search/#459ade7512c5
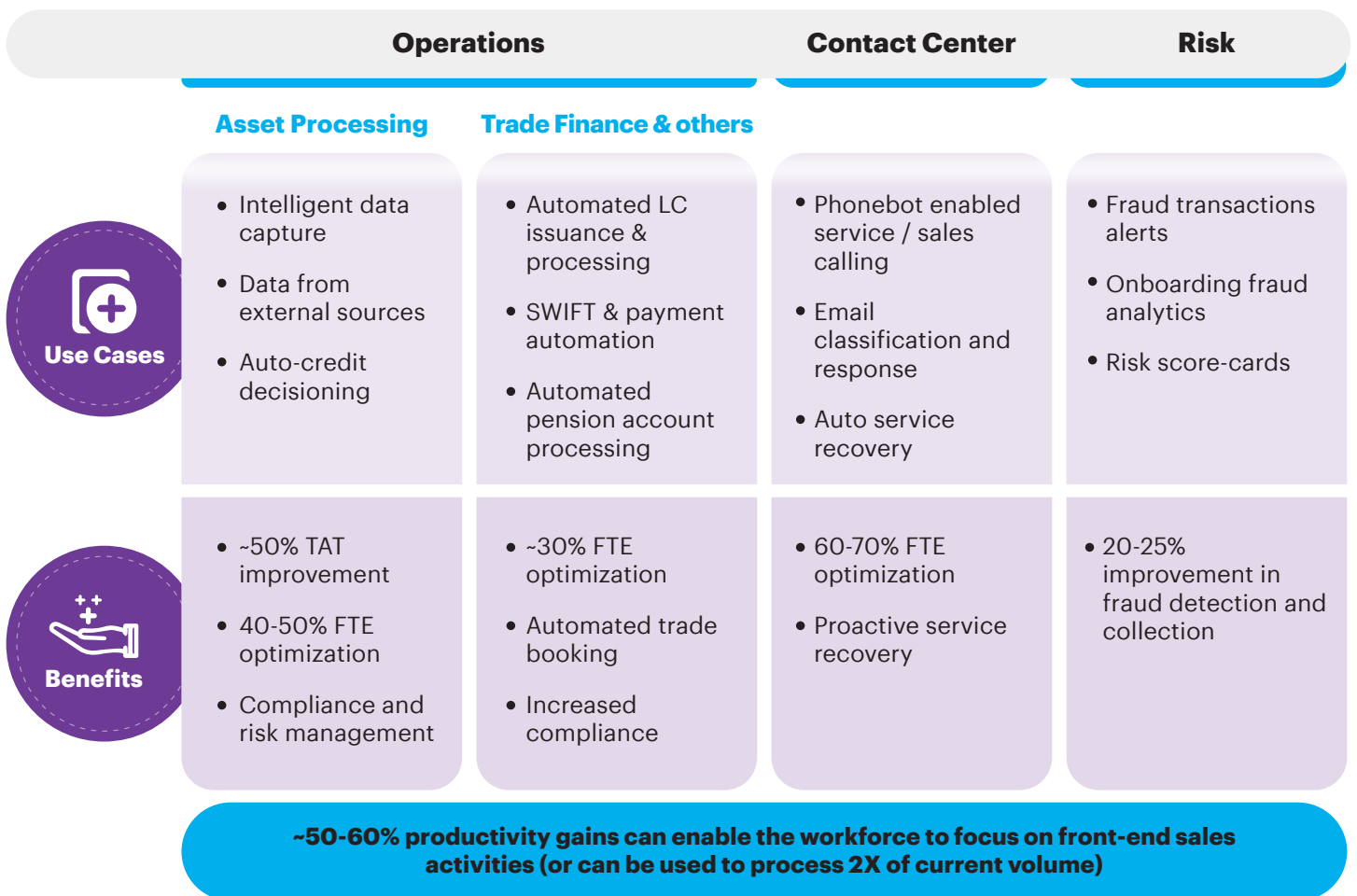2 - Exponential organization
3 - Presented in Google for India Summit 2017

CUIs: TRANSFORMING CUSTOMER EXPERIENCES AND OPERATIONS

CUIs help reduce acquisition costs and improve the conversion rates of digital touchpoints. They do it both by increasing digital adoption for routine requests and simplifying critical sales interactions like collecting documents etc. For example, chatbots can take on routine tasks such as servicing accounts and other basic banking operations, enabling banks to cut back on call centres and redeploy staff for revenue-generating roles such as sales and advisory. CUIs are one example of the possibilities of Artificial intelligence (See Figure 2) and the larger set of DARQ technologies (Distributed Ledger, Artificial Intelligence, Xtended Reality and Quantum Computing) that will see Banking and most other industries completely reinvent. Conversational banking also gives banks access to critical data on customer goals, financial behaviour, intentions and desires, based on which banks could upsell or cross-sell and offer relevant advice. Such meaningful interactions have a greater chance at converting leads and cutting down customer churn to push up the customer life time value. According to the Accenture Banking Technology Vision 2019 as AI evolves to offer cognitive capabilities that can sense, understand, act, and learn, AI-powered bots will interact far more naturally with both customers and other employees. The report notes that in a survey conducted by Accenture, 79 percent of bankers believe that within the next two years, AI will work next to humans in their organizations as a co-worker, collaborator, and trusted advisor. They also expect that the majority of bank-customer interactions will be conducted via AI in the next few years, making machines the "face" of the organization.

Figure 2:

Potential to lower costs, improve operations, and accelerate revenue growth with AI-enabled banking

	Operations		Contact Center	Risk
	Asset Processing	**Trade Finance & others**		
Use Cases	• Intelligent data capture • Data from external sources • Auto-credit decisioning	• Automated LC issuance & processing • SWIFT & payment automation • Automated pension account processing	• Phonebot enabled service / sales calling • Email classification and response • Auto service recovery	• Fraud transactions alerts • Onboarding fraud analytics • Risk score-cards
Benefits	• ~50% TAT improvement • 40-50% FTE optimization • Compliance and risk management	• ~30% FTE optimization • Automated trade booking • Increased compliance	• 60-70% FTE optimization • Proactive service recovery	• 20-25% improvement in fraud detection and collection

~50-60% productivity gains can enable the workforce to focus on front-end sales activities (or can be used to process 2X of current volume)
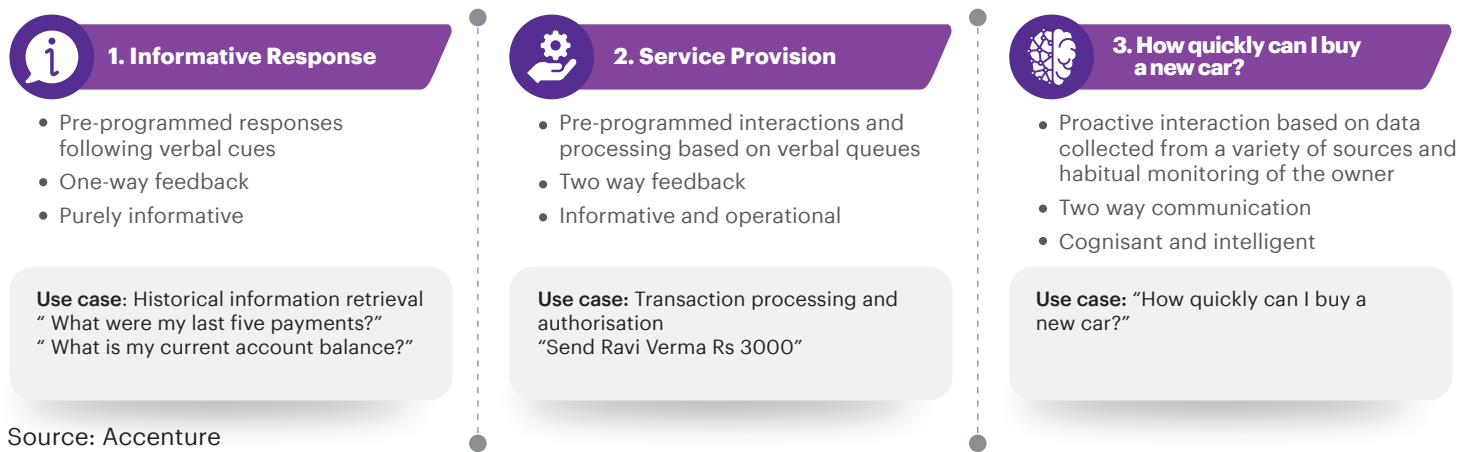
Source: Accenture
this is not exhaustive

INDIAN BANKS:
IN THE EARLY STAGES

Acknowledging that conversational banking is a prelude to the transformation of the industry, a few leading banks in India have taken the initial steps toward the use of CUIs. HDFC Bank's chatbot Eva, Kotak Mahindra Bank's bilingual virtual assistant, Keya, and Axis Bank's AI-powered assistant Axix Aha, are well-known examples of AI use in the industry. However, after the first rapid build out in AI capabilities that resulted in deploying bots, albeit largely for query resolution, there has been little evolution both in terms of design and use cases. (Figure 3 and 3.1) Even the WhatsApp interactions some banks use are similar to an IVR menu instead of an actual conversation.
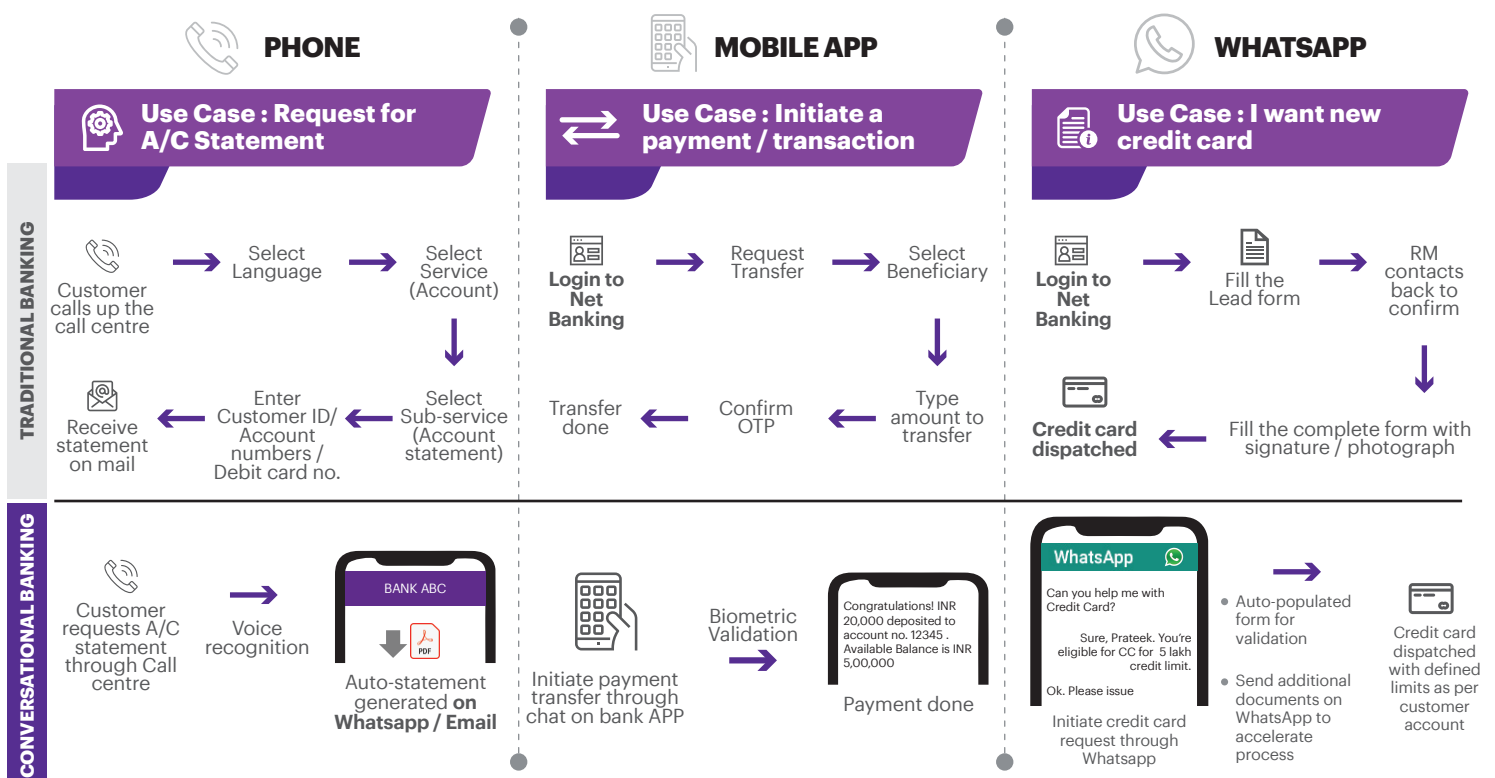
Without a strategic focus on AI adoption, banks in India are losing out on the opportunity to capture value across the customer lifecycle and to also make bank processes exponentially more efficient. (See Figure 4)
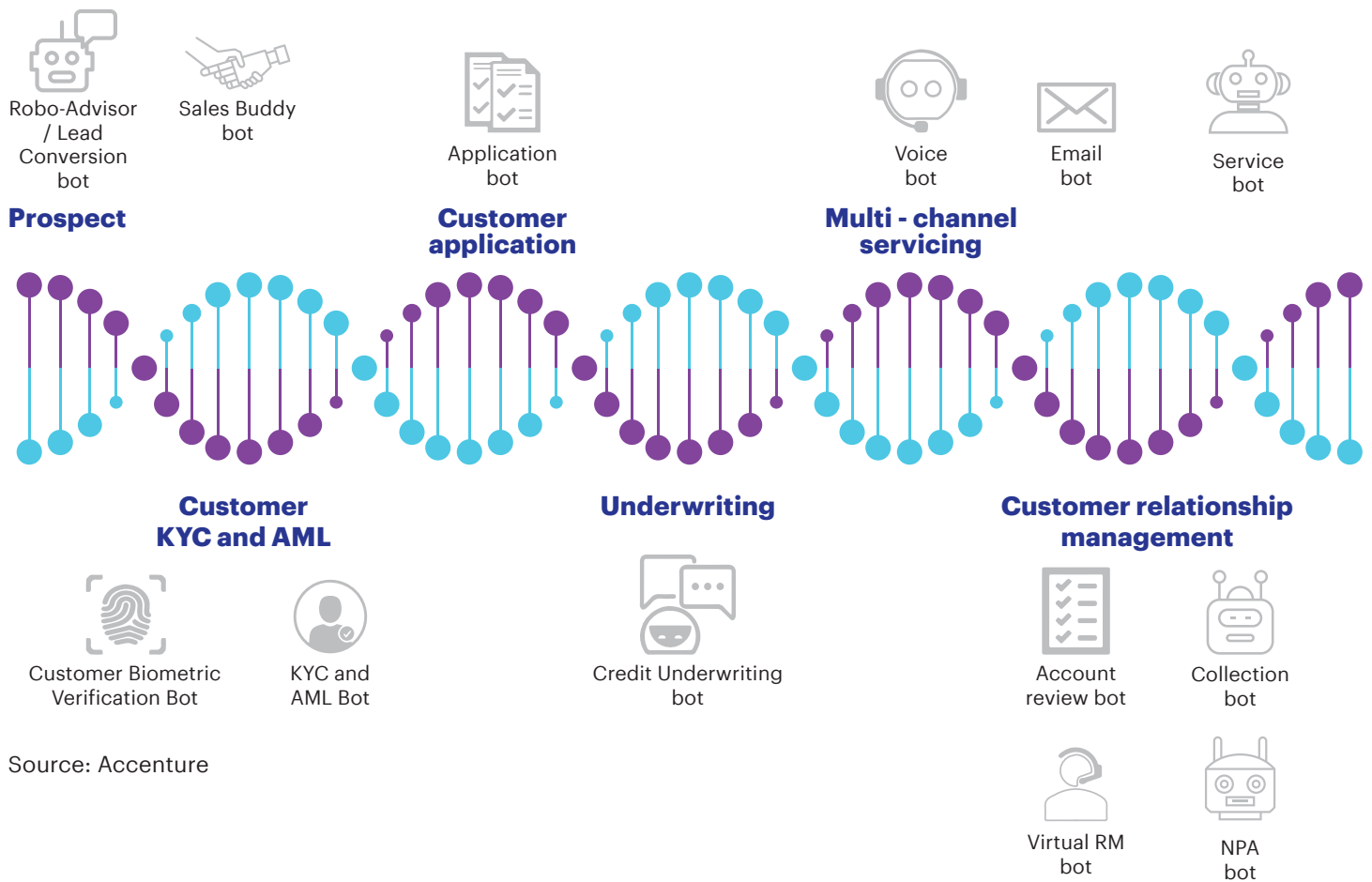
Figure 3:
Conversational banking use cases

1. Informative Response
- Pre-programmed responses following verbal cues
- One-way feedback
- Purely informative

Use case: Historical information retrieval
" What were my last five payments?"
" What is my current account balance?"

2. Service Provision
- Pre-programmed interactions and processing based on verbal queues
- Two way feedback
- Informative and operational

Use case: Transaction processing and authorisation
"Send Ravi Verma Rs 3000"

3. How quickly can I buy a new car?
- Proactive interaction based on data collected from a variety of sources and habitual monitoring of the owner
- Two way communication
- Cognisant and intelligent

Use case: "How quickly can I buy a new car?"

Source: Accenture

Figure 3.1:
Conversational banking across channels

PHONE
Use Case : Request for A/C Statement

TRADITIONAL BANKING

Customer calls up the call centre → Select Language → Select Service (Account) → Select Sub-service (Account statement) → Enter Customer ID/ Account numbers / Debit card no. → Receive statement on mail

CONVERSATIONAL BANKING

Customer requests A/C statement through Call centre → Voice recognition → Auto-statement generated **on Whatsapp / Email**

MOBILE APP
Use Case : Initiate a payment / transaction

Login to Net Banking → Request Transfer → Select Beneficiary → Type amount to transfer → Confirm OTP → Transfer done

Initiate payment transfer through chat on bank APP → Biometric Validation → Payment done

WHATSAPP
Use Case : I want new credit card

Login to Net Banking → Fill the Lead form → RM contacts back to confirm → Fill the complete form with signature / photograph → **Credit card dispatched**

Initiate credit card request through Whatsapp
- Auto-populated form for validation
- Send additional documents on WhatsApp to accelerate process
→ Credit card dispatched with defined limits as per customer account

Source: Accenture

Figure 4:

Capturing value across the customer lifecycle with AI

Robo-Advisor / Lead Conversion bot

Sales Buddy bot

Prospect

Application bot

Customer application

Voice bot

Email bot

Service bot

Multi - channel servicing

Customer KYC and AML

Underwriting

Customer relationship management

Customer Biometric Verification Bot

KYC and AML Bot

Credit Underwriting bot

Account review bot

Collection bot

Source: Accenture

Virtual RM bot

NPA bot

For example, Robo-advisor bots could intelligently identify leads to help the sales team reach out to prospective customers. An application bot could process customer applications while a Sales Buddy bot would work alongside bank staff, nudging them with reminders to close sales while other bots would complete verification including the biometrics of customers. More sophisticated bots would manage underwriting processes and multi-channel processing. They would also have meaningful conversations to understand the customer's needs and offer advice on key features of products and the best fit for the customer.

CONVERSATIONAL BANKING : KEY CONSIDERATIONS

Conversational banking may seem like a natural progression of the evolution of banking from telephone banking to internet banking to mobile banking. However, conversational banking is a paradigm shift in the way banks operate involving New IT (for example, AI, Machine Learning, and Big Data), new skills and a new operating model. Given the execution challenges in realizing the potential of conversational banking to transform banking, it is imperative to have the right implementation approach and business model.

1. Design a device and form-independent conversational banking strategy

Most banks think narrowly about conversational banking. They restrict the concept of adopting channel specific technology rather than conceiving use cases. For example, the same service request across email, chat, phone and web are configured and handled independently and the knowledge base is fragmented. This siloed approach deprives banks of synergy and speed.

Banks need to start with identifying the appropriate use cases and choose areas of maximum impact in terms of customer value as well as the rate of return for the bank. For example, while informational bots are low hanging fruit, other use cases must evolve such as relationship management. That means banks need to deploy a range of bots including application bots, mail bots, credit bots and recon bots among others either simultaneously or in quick succession. For example, mail bots can do sentiment analysis to prioritize emails. They can also classify, route and respond to interactions to deal with customer complaints and service requests. This transformation journey should be device and form independent allowing banks to quickly scale to different channels like Web, phone and WhatsApp. Conversational interfaces must be designed in the context of their use and follow familiar sequences and cues that encourage interactions and further engagement.

2. Design a Framework and Roadmap

A clearly defined framework will help banks shift systematically toward effective use of AI for building conversational banking capabilities. (See figure 5). In the absence of such a framework, banks will not be able to commit investments or implement changes in the operating model resulting in slow speed to market and patchy implementation with poor customer experience.

The roadmap would allow use cases to be prioritized alongwith the knowledge and content repositories and training for enabling intelligent bots.

Figure 5:
Framework for building AI capabilities
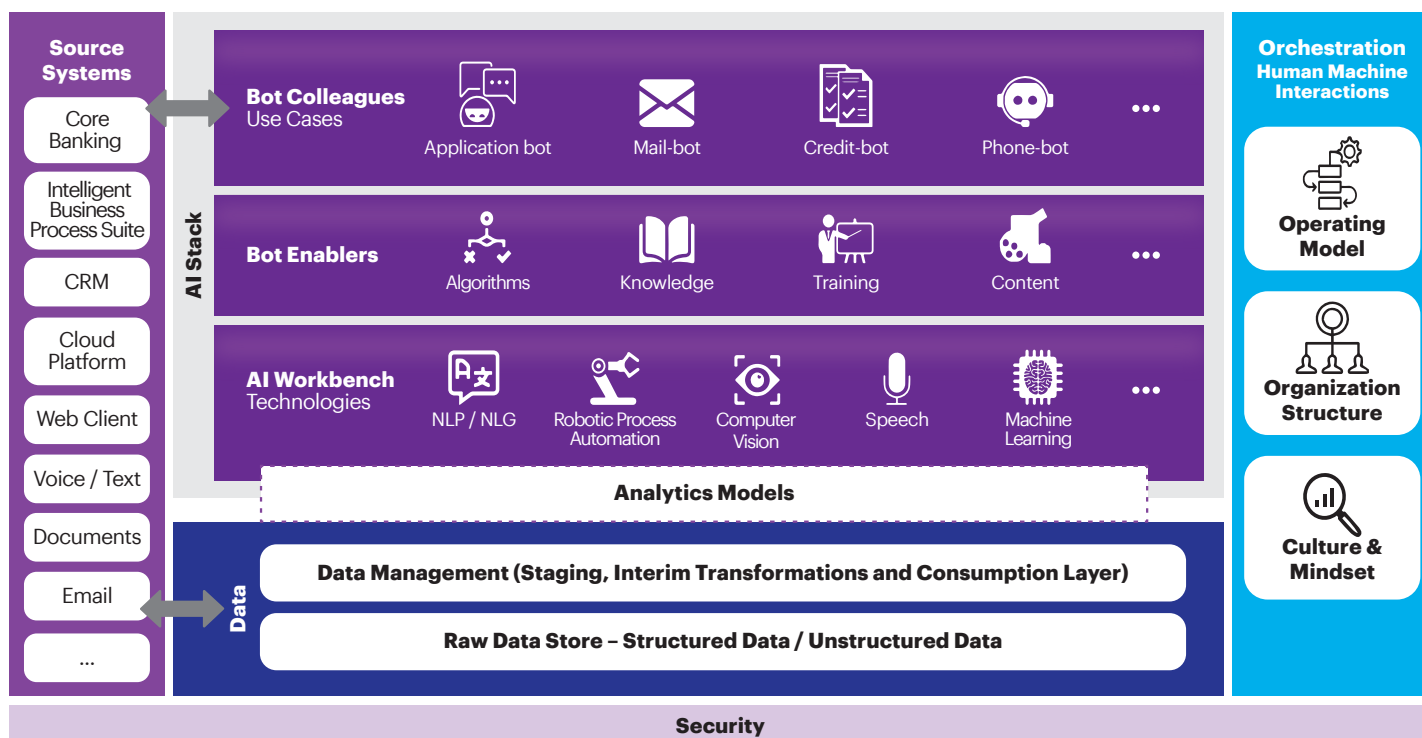
Source: Accenture

3. Build AI capabilities

There are three sets of capabilities that banks need to consider(See Figure 5). First, banks need to build their core data management platform that brings together their organizations structured and unstructured data and provides enough compute for exploration and machine learning Algorithms. Second, banks need to set up an AI workbench that brings together the core AI technologies across Natural Language Processing, speech recognition, virtual agents and text-to-speech for chatbots, robotic process automation for email bots, computer vision, OCR, and deep learning. Third, they need to build products for specific use cases – the recon bot, credit underwriting bot or the phone bot that solves a discrete business challenge. These bots will typically make use of multiple underlying AI technologies and the same technology implementation will be used across multiple bots, which is why it is essential to separate these in neat layers.

4. Focus on the missing enablers

Building bot is one challenge and ensuring it has the accuracy and fulfillment rate is another. While multiple banks have experimented with limited AI plays like chat bot, they are yet to see these bots provide substantial benefits or manage a massive set of queries. This is largely because these are typically thought of as technology implementation and the investment in enablers required around training data, content, and algorithms is rarely made. These enablers require new methods and diverse skills sets. Acquiring skills for these roles will be a challenge as things are still being done for the first time and most industries are looking for the same talent. As AI-enabled bots make autonomous decisions, banks will also need to work out how to deal with new legal, compliance and risk issues.

5. Re-imagine the operating model and internal culture

The operating model will need to evolve to one in which CUIs will be powered both by teams combining humans and bots. This will call for a massive change in the internal culture of banks. Processes for human and bot interactions and collaboration will need to be defined, and governance frameworks set. Banks will need completely new skills around managing AI – skills to train, explain and sustain AI. Further, Banks will need to invest in training employees to develop skills to leverage the power of AI-skills to amplify, interact and embody. With bots amplifying productivity, adequate investments will need to be made on learning platforms and in reskilling of people. A command center to track and monitor the bots at scale will create opportunities for even further productivity improvements.

CONCLUSION

A structured approach to building AI-based conversational banking capabilities will help banks reap significant returns. Our experience with global banks show that conversational banking can accelerate revenue growth by 25 percent and reduce costs by up to 30 percent.

That's a considerable upside for banks amidst intense competition. It gives them an opportunity to become a part of everyday life of customers or risk losing relevance.
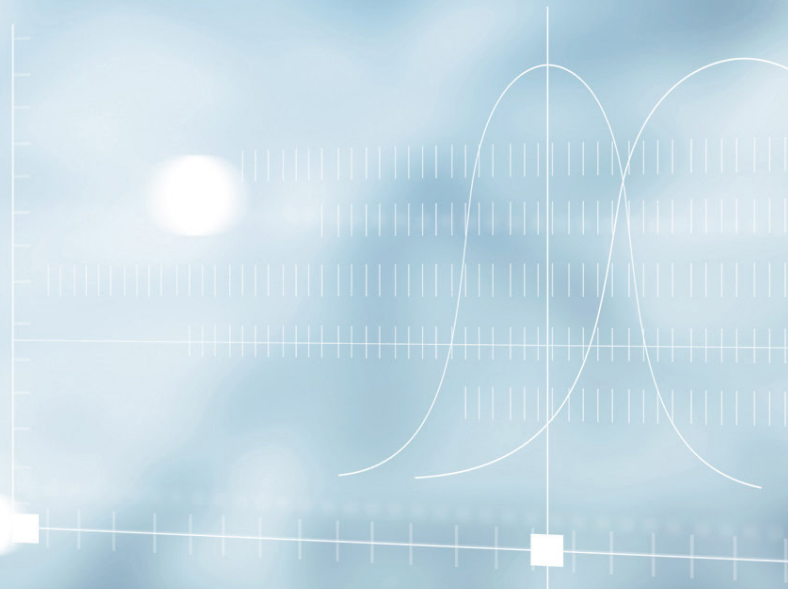
AUTHORS

Sonali Kulkarni
Managing Director, Financial
Services, Accenture In India
sonali.kulkarni@accenture.com

Pranav Arora
Managing Director, Financial
Services, Accenture In India
arora.pranav@accenture.com

ABOUT ACCENTURE

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions – underpinned by the world's largest delivery network – Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With approximately 425,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com.