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3 billion reasons voice can transform banking

How voice interaction can revolutionize the future
of financial services

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Good morning...

Imagine a typical morning when you're getting the kids dressed, putting breakfast on the table, and trying to get out the door on time.

Wouldn't it be nice to be reminded that you have a bill due that day or to transfer funds to cover an upcoming payment? Wouldn't it be nicer if this was a hands-free reminder from a connected device?

This may seem futuristic, but voice technology already has reached a maturity and comfort level that changes the way that business-consumer relationships are built. In our experience, we've found that the opportunity is not just about the voice interaction, it's about the related operating model changes and integrating the voice interaction with digital touchpoints across the customer journey — which could bring upwards of \$3 billion in annual cost savings.

With technology companies now applying for banking licenses and banks calling themselves technology companies, the battle for retail banking is clearly intensifying. Organizations are changing their business models and product distribution, and many banks are rethinking the role of the branch — all in an effort to better address how consumers interact and use their financial products.

One example is voice technology. As some organizations look to use voice interaction for basic customer support and others consider broader operating change, there are several key factors that will separate leaders from laggards.

Voice interaction technology is not the future, it is here today



Voice-capable devices are quickly becoming pervasive — over 100 million Alexa-equipped devices have been sold in just the first three years of product availability and **52%** of all smart speaker owners now use their devices daily.^{i, ii}



Comfort with voice technology is very clear—roughly **80%** of consumers report satisfaction with the voice shopping experience.ⁱⁱⁱ



Roughly **20% to 30%** of all mobile phone searches are done by voice and this is forecasted to increase to over **50%** by 2020.^{iv}

Reimagining the customer experience with convenience

Digital-only bank customers are not a happy group: they are the least satisfied customer in all of retail banking.¹

Poor communication is a major factor as banks have lost a personal connection in the transition to digital. Other factors such as frustrating experiences with call centers and high fees are slowly chipping away at bank-customer loyalty.

One way to crack the code is to make the customer experience more convenient, an area financial institutions have not always emphasized. Instead of having to search for a routing number or worry about an outstanding payment, consumers should be able to quickly get relevant information simply by asking.

Other industries such as retail and media that are further along in their analog-to-digital transition have generated incremental value by developing more convenience in their product delivery and interaction. One-click access to any movie or TV show is far more convenient than having to physically rent or buy the content by typing or searching. Similarly, the way the retail shopping industry has been revolutionized through online and voice ordering and fast delivery highlights the convenience factor versus in-person shopping. In fact, 88% of consumers are now willing to pay for faster delivery, which illustrates not only that consumption needs have changed but that customers are willing to pay for convenience.

The financial services industry is addressing the one-click, on-the-go behavior of consumers. The availability of payments is widely embedded in mobile phones and has become a highly convenient payment method, especially when tied to the activity itself (e.g., ride sharing or meal payment). Chatbots have also become popular as banks look to refine their approach to customer experience by providing a natural way for consumers to get information when and where they want.²

This capability will quickly become table stakes. From our experience, the true opportunity lies not in addressing basic support questions with a chatbot, but in truly integrating all branch transactional activities with voice interaction technology.



The top questions handled by voice assistants are basic customer assistance issues. Whether asking for transaction history or account balance, the routine nature of these requests provides a simple backdrop for institutions to instantly provide the right information at the right time. But this is unlikely to provide a competitive advantage. Winners will likely be those that reimagine the customer journey across various channels, products, and services with end-to-end integration. Organizations that reward service, rather than sales, can begin to provide the full capabilities of the bank in order to help increase lifetime value of the customer.

¹ "Retail Bank Customer Satisfaction Strained by Growth of Digital-Only Segment, J.D. Power Finds," J.D. Power, April 26, 2018

² PwC 2018 Global Consumer Insights Survey, PwC

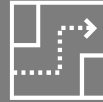
Where to get started:

1) Understand implications on the **operating model**



2) Be deliberate with your **workforce**. How will roles change? What are the **critical new skills**?

3) Develop a marketing approach in order to accelerate **customer adoption**



4) Integrate **next-gen technology (AI, APIs, RPA)** in a cost effective and secure way without changing the core banking platform.

So, with all this in mind, how do you introduce voice interaction to improve the customer experience while maintaining focus on the end-to-end efficiencies? You should focus on the implications for the operating model construct on day one. How will the customer acquisition and servicing model change? What are the implications for employees, processes, and technology at the branch, call center, and innovation centers?

As this groundwork is determined, the organization can then begin to align the business strategy with deployment plans to engage employees across all lines of business on customer adoption. The technology architecture, which will be addressed in a subsequent article, will largely depend on the existing footprint in addition to internal decisions such as internal and external application program interface (API) availability.

Transform the entire value chain with voice to deliver financial solutions rather than a financial product

Technology has enabled per capita delivery of goods and services.

The advent of same-day delivery and content streaming has required wholesale changes to end-to-end operations, and it has reshaped consumer behavior. In contrast, the financial services industry has largely responded to, rather than shaped, changing consumer behavior. A patchwork of individual features from digital channels to chatbots has elevated some specific aspects of banking, but it lacks the end-to-end operational rewiring that would transform the bank and unlock downstream efficiency levers.

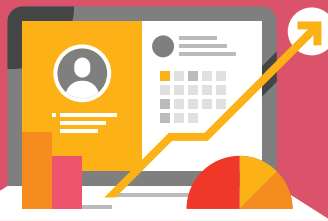
Addressing customer assistance with voice interaction technology is an interesting use case, but it is far from transformative unless the downstream end-to-end benefits are realized. Voice interaction effectively convert human input into standardized data structures. This can then lead to process automation and a path for mid- and back-office modernization as APIs and RPA/IPA (robotic and intelligent process automation) are used to integrate

customer requests with core banking systems without significant technology investments.

Those that make the most of this to realize cost efficiencies in the form of straight-through processing or to break out of a narrow, product-centric approach to better address holistic customer needs will turn traditional customer service from a novelty into a competitive advantage.

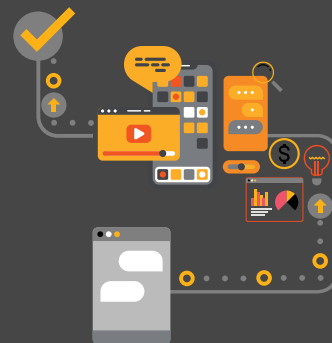
Take the case of a consumer asking a voice assistant to open a new account. The initial focus will be on automation that recognizes and verifies customer details, sends pre-populated forms to the consumer, and transposes the information to the system of record. Subsequent opportunities, however, rest with developing personalized recommendations that can be derived from the now end-to-end standardized workflow. Is there a better account type the bank could recommend?

Can the consumer be pre-qualified for other products?



Can a preliminary financial plan be prepared to then discuss with a financial advisor?

Can you shift away from a reactive service model to proactive service model leveraging voice interaction?



Voice interaction should extend far beyond transactional activities to also deliver convenience in the account opening process, proactively find the

next best offer, or deliver tailored financial advice rather than relying on the customer to visit a branch or call a personal banker.

Figure 1: Potential efficiency opportunities across all channels

Channels	Wealth management advisors	Online	Call center	Branch	Mobile	Voice banking		
Client facing	Prospecting and lead management	Campaign management	Client proposal generation	Client experience/ channel management	Client analytics	Client onboarding/ account opening	Inquiry and instruction management	Account termination
	Banking				Wealth and trust			
	Loans origination	Credit and risk analytics	Account servicing	Cash services	Advisory services	Investment research	Portfolio construct/ management	Trade support/ execution
	Application processing	Customer communication	Wire transfer processing		Trust admin	Tax services	Account distributions management	Advisory analytics
Non-client facing	Product strategy and management	Third party partner management	Account maintenance	Client due diligence	Client reporting (tax, statements)	Fee and contract management	Money movement	
	Banking				Wealth and trust			
Middle office	Underwriting credit management	BSA/AML compliance	Treasury management	Marketing database management	Accounting and valuations	Performance report/analysis	Asset movement	Inv compliance management
Back office	Loan and deposit servicing	Loan processing	Loans disbursement	Collateral/ dep management	Custody/ safekeeping	Clearing/ reconciliations	Cash and collateral management	Asset administration
Small opportunity			Medium opportunity			Large opportunity		
(less than 10% efficiency gain and small savings)			(10-30% efficiency gain and medium savings)			(30%+ efficiency gain and large savings)		

Source: PwC

A voice assistant coupled with other emerging technologies may be a powerful enabler to unlock these downstream opportunities. Artificial intelligence (AI) is approaching basic human capabilities in areas of speech recognition and language translation by converting human input into data that computers can act upon. By applying machine or deep learning techniques to the data set, personalized recommendations can be made and fine-tuned over time, refined by the real world data set derived from the voice input.

These customized responses play directly into the one-click mindset that many consumers are accustomed to — they can deliver faster, more convenient service than call centers or branches. In taking an analytics approach to ask the customer if they would like to transfer funds to a higher yielding account with the awareness of upcoming payments, institutions can bring an automated yet personalized approach to the bank-consumer relationship. In many cases — especially for basic customer assistance requests — this type of personalized response can directly influence loyalty and lifetime customer value.



Customer assistance

Frequently asked questions tend to have well-defined inputs and outputs that can be addressed with automated, customized responses that have a high likelihood of success. By enabling consumers and customer-facing employees to get the right content at the right time, questions and transactions can be properly addressed at a lower cost and in a satisfying manner.

Customer experience

Voice interaction is a gateway to help improve personalization and the digital experience. The larger the training data set, the more accurate and satisfying ancillary technologies (e.g., AI) will be in making recommendations. No longer will customers be put on hold, and more proactive recommendations can often directly influence customer satisfaction.

Operational excellence

Any area where human input is converted into a standardized data structure should be evaluated for process automation and AI-based recommendations for faster decision making. While this can include customer-facing recommendations, more significant opportunities exist in redefining downstream operational processes.

Voice is the tip of a holistic transformation that can unlock large efficiencies

True use of voice technology will extend across both the front and back office, which could result in massive efficiencies that can translate to competitive pricing for customers and significant shareholder value.

Voice interaction will increasingly be seen as a method to gather valuable data in the consumer's area of interest. This essentially digitizes a direct line to the consumer and allows analytics to be applied to a broader yet more individualized data set. Using voice interaction as a starting point may then lead to benefits that spans both customer-facing and operational aspects. Addressing the set of key levers defined below can result in 15% to 35% (Figure 1) efficiency gains across the value chain:

- Operating model redesign with automation and mid-/back-office consolidation.
- Service delivery model focused on exceptions versus repetitive manual tasks.

- Integration with other technologies such as automation and APIs.

Cost rationalization opportunities include

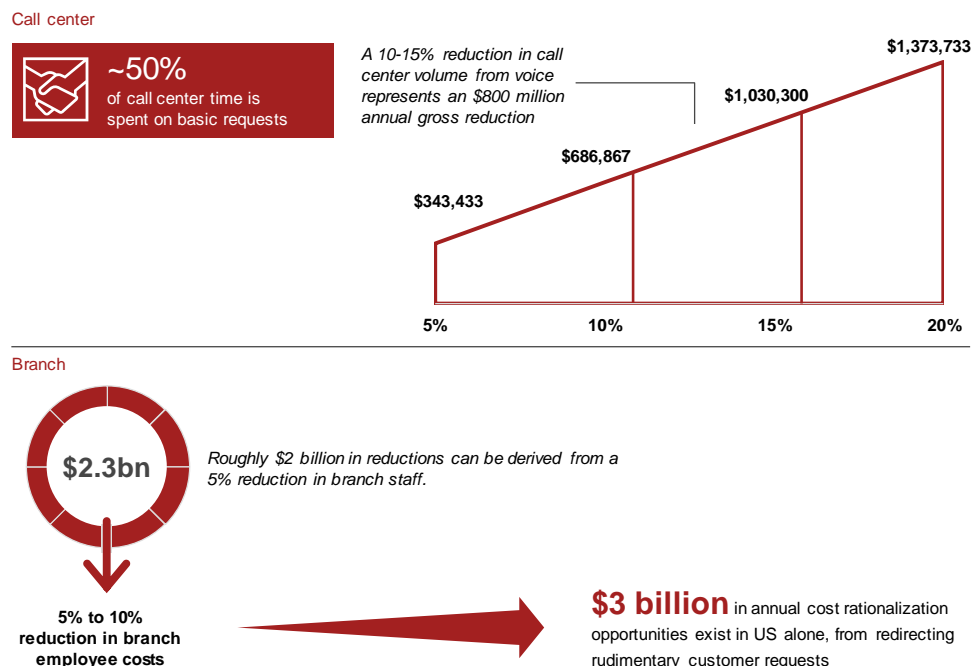
- Free up front line branch staff
- Reduce call center call volume
- Minimize mid-/back-office operations

In looking at the potential for operational refinement, more than \$3 billion in annual cost rationalization opportunities exist in US alone from redirecting rudimentary customer requests.

Figure 2: \$3 billion in cost reduction potential when rerouting basic requests
(\$ in thousands)

The economic benefit of voice

\$3 billion in cost reduction potential when rerouting basic request



Source: PwC, US Bureau of Labor Statistics, FDIC, FINRA, American Bankers Association, company reports

Note: Figure 2 refers primarily to US retail banking and brokerage.



The average time spent on basic inquiries (balance requests, transaction status updates, address changes) typically occupies just over half (52%) of total call center time. That, combined with branch employee reduction (5% to 10%) from voice handled account openings or transaction questions, could result in about \$2.8 billion in annualized industry cost reductions.

Considering that Figure 2 is limited to the repositioning of basic customer assistance inquiries, this is likely just a starting point. Driving efficiencies across the aggregate value chain is the real opportunity for many institutions. The rewiring of processes to have the front-end voice natural language solution pass on information to the back-end system of record reduces the number of human touch points and should improve overall data quality. The scope of these projects dovetails with RPA projects that are in various stages of adoption at many financial services firms.

The bottom line

These are just a few ways organizations can begin to expand the scope and impact of voice interaction technology beyond the front-end voice interaction. The rapid shift in consumer behavior and expectations, the potential for improving loyalty scores, and the economics of cost savings all provide the business case for embracing voice as a new and integrated distribution channel. This can result in significant lifetime value for customers as well as shareholders.

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- ii. "The Smart Audio Report, Winter 2018," NPR and Edison Research, January, 2019
- iii. Bret Kinsella, "Data Show Voice Shopping Delivers Customer Satisfaction, Positive Sentiment and Higher Spending," voicebot.ai, May 2, 2018
- iv. Rebecca Sentence, "The future of voice search: 2020 and beyond," econsultancy, July 26, 2018

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Thank you

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