IBM

Just ask Anna

ABN AMRO advances its digital
transformation with virtual agents

by Deirdre Puleo

5-minute read

Fintechs are giving traditional banks a run for their money.

Consumers are expressing their appreciation for digital banking with their wallets. Increasingly popular, digital banks can offer faster, more convenient and more affordable financial services when compared to traditional banks. They also set a high bar for personalized customer experiences. Traditional banks have a simple choice: keep up or get out.

Jeroen Das, Product Owner of Conversational AI at Dutch banking giant ABN AMRO Bank N.V., is well aware of the industry's shift. "We have a lot of new entrants in the financial industry," he explains. "They have a competitive edge over the larger, more classical banks that are still transitioning to becoming true digital banks. If banks don't embrace

digitization, I think they will lose relevance to customers pretty rapidly."

Bob van Groningen, ABN AMRO's IT Engineering Lead, agrees: "Digital transformation for banks is really important. I think we must become more digital, without losing the connection with our clients. If we're not able to do that, customer satisfaction will drop quickly and, if that happens, we will start to lose clients rapidly to all the specialized alternatives that have come up in the industry in the past years."

Today, ABN AMRO is on the path to digitization. However, not too long ago, its retail customers had to contact the call center or send emails to get answers to questions. The process was antiquated and time consuming. In 2017, when conversational AI technology was still relatively new in the Dutch market, the bank experimented with chatbot services to gauge customer response. Overall, customers liked the technology. The bank, however, saw its limitations, especially when customer questions or requests deviated from scripted scenarios.

The problem was lack of personalization; the initial chatbot technology didn't have the scalability and intelligence required to anticipate customers' needs. Das comments: "We needed flexibility around our NLP/NLU [natural language processing and natural language understanding] solution so we could change the dialogues and interactions, and address the new needs of customers on that specific day."

For ABN AMRO, the ideal solution would provide that flexibility, plus support the industry's compliance and security requirements. It would also take advantage of the bank's IT investments.

van Groningen sums it up: "The challenge is to make sure there is just the right combination of a good experience for clients and a fast, usable and scalable digital solution behind it for the banks, which also works with all the systems the bank already has."

Number of conversations Anna has with customers

500,000

annually

Anna answers

85%

of customers' tax questions

From Watson comes Abby and Anna

After a comprehensive RFP process in July 2018, ABN AMRO chose IBM® Global Business Services® to deploy a conversational AI platform based on IBM Watson® Assistant software. Working closely with the bank's technical team, the IBM consultants provided the expertise, skills and resources necessary to develop and deploy the best solutions based on company needs. Later, in 2020, ABN AMRO also signed up for IBM Watson Cloud credits, gaining access to more than 130 services.

According to Das, IBM Watson technology provides the flexibility, scalability and security features the

bank needs — and then some. "IBM Watson technology is not only about Watson," says Das. "It's also about the services you acquire around Watson itself that meet all the criteria we are

looking for. We implemented it in such a way that basically we can enable a chatbot for a new purpose within a day, and from a very secure, compliant perspective."

The engagement involved building two virtual assistants. The first, named Abby, is an internal virtual agent available through the bank's portals to support its technology services teams. The second, called Anna, is an external-facing customer service virtual agent that assists the bank's retail and commercial banking customers.

Anna gets its training and education from data garnered from the bank's contact center. Available 24x7 on the bank's chat channel, it provides answers by both assessing a customer's need and taking their profile into account.

"We call that intent recognition," says van Groningen. "This way Anna can quickly provide them with the solution they need. If more complex advice is needed, she will transfer the client directly to a knowledgeable live chat agent. This way, clients always get the answer they need."

To build its conversational AI platform, ABN AMRO got help from the local IBM consultants and technology experts from the IBM Client Innovation Centers in Lithuania and the Czech Republic.

"Ever since we selected Watson, the IBM team has been here to train our staff in how to implement this correctly," says van Groningen. "Now we've set up a real partnership where the ABN AMRO staff and IBM staff are working side by side and gaining knowledge from each other …. It's absolutely great to see that we can partner in this way and that the results are coming in very fast at the moment."

Moving forward in 2021, ABN AMRO plans to deploy IBM Watson Discovery technology and extend its use of conversational AI to its commercial and private banking customers. Roadmap items for this next phase include intent clarification, customer journey optimization and strategic improvements using the linguistic modelling approach, among others.

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Jeroen Das, Product Owner of Conversational AI, ABN AMRO Bank N.V.

Anna, at your service

On average, Anna chats with nearly 500,000 ABN AMRO customers each year. In the last quarter of 2020, she provided answers for 60% of the 150,000 customers who interacted with her. For specific topics, such as taxes, her success rate is even higher.

"Anna answers almost 85% of all customer questions about tax forms," says van Groningen. "And she scores a 50+ in NPS [net promoter score] from customers who are looking for certain answers, so I think that's really good."

Das agrees. "What is very important in this journey is that you always blend your virtual assistant with human support, so the customer never hits a dead end," he says. "In

a digital landscape, Anna is sort of the matchmaker between what the customer needs and the large number of specialists working within the bank who can help."

Although ABN AMRO is quick to acknowledge that Anna frees up more

time for live advisors to focus on clients with complex queries, the true value of conversational AI is far greater. As the first step in a larger digital transformation initiative, Anna justifies the banks' technology investments and inspires the use of AI in more business cases, such as client onboarding.

Equally compelling, the technology is already delivering insights that ABN AMRO is using to improve the customer experience in other areas of the organization. For instance, analyses of Anna's conversations revealed how the bank could change some settings and content on its website to make it easier for customers to find information.

"We didn't anticipate it but, because Anna stores and analyzes all of the conversations it has with customers, you start to observe the larger problems of your digital applications next to your chat channel," explains Das. "Instead of just interpreting clicks and page views, we can understand why the customer is doing what they're doing, which gives us a lot more insight into how to innovate our digital landscape."

To ABN AMRO, Anna is more than just a virtual agent. It is a central part of its digital first strategy. "It's not only making the old processes digital," concludes van Groningen. "It's also making sure that this new experience is better than the old experience and that we're improving that experience every day. Anna fits perfectly with our strategy of becoming a personal bank in a digital age."

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Bob van Groningen, IT Engineering Lead, ABN AMRO Bank N.V.

About ABN AMRO Bank N.V.

Amsterdam-based ABN AMRO (external link) employs 19,000 people across five continents who share a common vision: to be a personal bank in the digital age. It is committed to using digital services and data to better understand its retail, private and corporate clients and enhance the customer experience. As the third largest bank in the Netherlands, ABN AMRO offers a variety of mobile, internet and in-person banking services, insurances, mortgages, savings, investments and credit cards, among others.

Solution components

- IBM® Global Business Services®
- IBM Watson® Assistant
- IBM Watson Discovery