



# Phygital - The Amalgamation of Physical and Digital Banking Services



# Contents

<b>Preface</b>	<b>3</b>
<b>Introduction</b>	<b>4</b>
<b>Digitalization is Changing the Face of Indian Banking</b>	<b>5</b>
• <b>Push Toward Digitalization</b>	<b>5</b>
• <b>Technology Transforming Banks</b>	<b>6</b>
<b>Importance of Physical Engagement in Banking</b>	<b>7</b>
• <b>Banks are Optimizing Branches</b>	<b>7</b>
• <b>Branches Retain a Critical Role for the Customer</b>	<b>7</b>
<b>An Optimized Mix of Digital and Physical Services will Fuel Bank Success</b>	<b>10</b>
• <b>Transformation of Bank Branch - Digitization</b>	<b>10</b>
• <b>Humanizing Digital Experiences</b>	<b>11</b>
• <b>Hybrid Advisory</b>	<b>13</b>
<b>Conclusion</b>	<b>14</b>
<b>Referfences</b>	<b>14</b>
<b>About the Authors</b>	<b>15</b>

# Preface



Today, the physical and digital worlds are essential aspects of life – at home and at work. Clearly, transformation is underway as these *physical* and *digital* worlds coalesce or amalgamate to create new sources of value. *Phygital* is reshaping the way we live, the way businesses operate, and the way consumers and corporates handle financial transactions.

Indian banks recognize phygital challenges and opportunities and have been successfully investing in digitalization, emerging technologies, and data utilization techniques. Although digital banking services are gaining ground, a segment of consumers continues to prefer branches and human interaction over technology.

With open banking becoming the de facto mode of operation, our team of financial services analysts prepared this paper to examine a financial world that combines physical interaction with digital services.

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# Introduction

The Indian banking landscape is changing rapidly, and digitalization is driving that change. The Indian government is aggressively promoting digital transactions with initiatives or policies such as Digital India, demonetization, and the Unified Payments Interface. New age competitors with agile models and seamless customer experience are giving established banks a run for their money. Banks face a new paradigm where the definition of customer experience and the way customers interact with their bank is being refined. Hence, the first agenda item for many banks in India is digitization.

Rising cost pressures and the need to improve efficiency have forced some banks to close branches. While their growth may be diminishing, branch banking dominates other channels in India, mainly because of security concerns and customers' low financial literacy. There are still some bank services that cannot be fulfilled from a remote location. Human interaction enables banks to build trust, credibility and provide related advisory services. Some customer segments still depend on traditional banking methods and are only comfortable with face-to-face interactions. With customers split into different segments, banks require more than one delivery method or a hybrid approach to satisfy the needs of all.

Banks are looking to reimagine the network and channels where customers interact and aim to make the interactions seamless to provide a frictionless experience. Banks are fast-tracking transactional activities and aiming to spend more quality time with the customer to improve loyalty and increase sales capacity. Banks will need to adopt a customer journey mindset, with end-to-end processes supported by artificial intelligence (AI), robotics, machines, and human agents. A hybrid approach that combines digital and personal interactions will create a more responsive and cost-effective distribution model.

Not surprisingly, many banks are considering *phygital services* – a mix of physical and digital – to cater to consumers' needs and expectations.

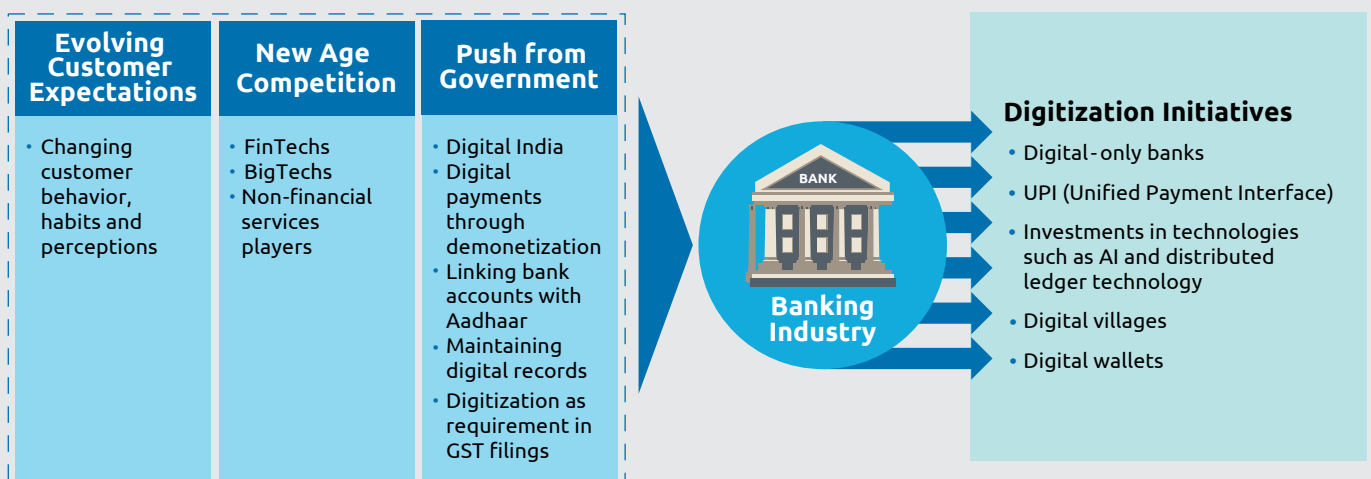
# Digitalization is Changing the Face of Indian Banking

The digital revolution has swept across various industries, and the Indian financial services industry is no exception. The Indian banking industry has taken strides over the past decade and is rapidly shifting to digital. Evolving customer expectations, new-age competition, government initiatives, and advancements in technologies have all been essential digital drivers.

## Push Toward Digitalization

The *Digital India* initiative was a significant digitalization policy push. Cashless transactions were a far-fetched dream in India's predominantly cash-based economy, but the government's disruptive demonetization move changed the game. Thanks to demonetization, mobile wallets use increased 147.7% from September 2016 to September 2017, and debit card transactions grew 111.9%.<sup>1</sup>

**Figure 1: India Pushes Toward Digitalization**



Source: Capgemini Financial Services Analysis, 2018

Furthermore, within the payments domain, the launch of the United Payments Interface (UPI) and Bharat Interface for Money (BHIM) have been significant government innovations.

Today, bank customers often define their expectations based on their positive experiences elsewhere. New age competitors including FinTechs such as Paytm, BigTechs such as Google, Amazon, and Facebook, and non-financial services players such as telcos and retailers are entering the banking industry.

Quick product and service delivery – combined with a seamless user experience – has become the new normal regarding what customers expect. It is no surprise, therefore, that understanding changing customer preferences and behavior is now critical for banks. Firms must innovate to remain competitive.

1 Reserve Bank of India Website, <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home>, Accessed November 28, 2018

To meet these customer expectations, ward off new competition, and conform to the government's vision of *Digital India*, banks are coordinating efforts to develop new service capabilities for streamlined adoption of digitalization.

## Technology Transforming Banks

The traditional banking approach is being redefined. Banks can no longer expect customers to come to them; instead, they must proactively reach out to customers, before another financial services provider swoops in.

Process intensive and not very customer-centric, the Indian banking sector is changing thanks to holistic initiatives that offer customers an intuitive and personalized digital banking experience.

**Online and Mobile Banking:** Banks are providing omnichannel experiences that are seamless and unified across all touch points; for a customer, it is possible to do virtually every single banking operation right out of the palm of one's hand from a smartphone/tablet.

**Cloud:** There has been a significant turnaround over the past few years in bank attitude toward the use of the cloud. As security threats recede, more and more firms are adopting cloud-based solutions. Although most Indian banks have applications on private or public clouds, they are expected to follow the global trend of moving to a hybrid cloud.

**Distributed Ledger Technology (DLT):** Some of the largest Indian banks already use DLT, and the technology is now finding buyers among high-street lenders seeking to thwart competition from FinTech and BigTechs firms. Ex. Kotak Mahindra bank tapped into Ripple xCurrent to power instant remittance payments.<sup>2</sup>

**Artificial Intelligence (AI):** Banks are leveraging technologies such as AI and ML (machine learning) on different functions enabling them to offer far more personalized and efficient customer service.

**Digital-Only Banks:** A breed of banks has emerged that provides services via digital-only applications, a move that redefines banking by connecting with a new generation of mobile-first consumers. Ex. DBS Digibank<sup>3</sup> and Kotak 811.<sup>4</sup>

**Open Banking:** With regulations such as PSD2 and other open banking initiatives across the globe, banks have begun to share data with third parties to build innovative products and services. The Indian banking industry is following the trend too – with RBL Bank opening its API developer portals.<sup>5</sup>

**Cyber Security:** Digitization of processes and increasing use of new technologies have made banks a prime target for cyber-attacks. Reserve Bank of India, as well as other individual banks, are working towards enhancing cyber security mechanism.

Banks understand that digitalization and technological evolution has changed the way banking is being done today, driving them to invest significant resources in digital initiatives.

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2 Finextra, "India's Kotak Mahindra Bank taps Ripple xCurrent for remittances," June 28, 2018, <https://www.finextra.com/newsarticle/32320/indias-kotak-mahindra-bank-taps-ripple-xcurrent-for-remittances/inclusion>

3 DBS website, <https://www.dbs.com/digibank/in/index.html>, Accessed November 28, 2018

4 Kotak website, <https://www.kotak.com/en/personal-banking/accounts/savings-account/811-Account.html>, Accessed November 28, 2018

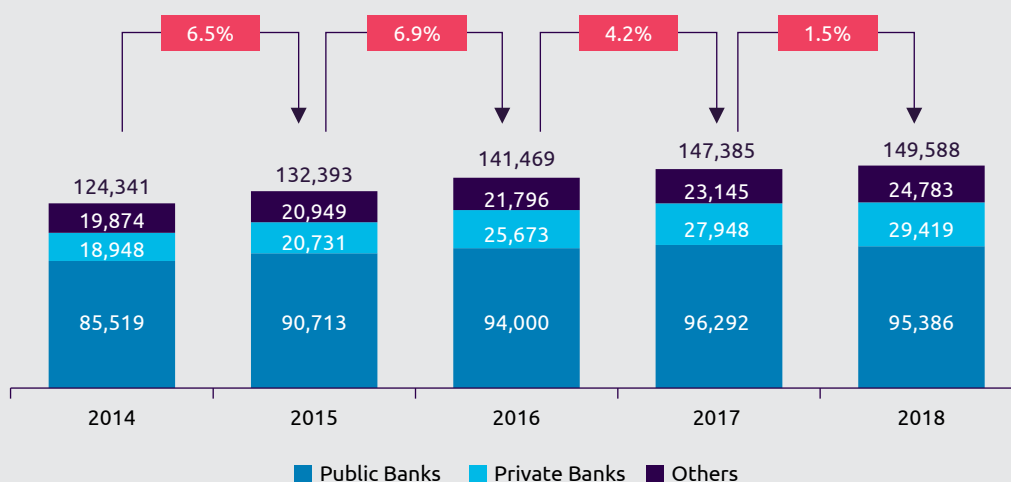
5 RBL Website, <https://developer.rblbank.com/content/rbl-bank-developer-portal>, Accessed November 28, 2018

# Importance of Physical Engagement in Banking

## Banks are Optimizing Branches

Over the past few years, the growth rate for brick-and-mortar branches has declined in India. Cost pressures and operational efficiency priorities have spurred banks to optimize their branches. On average, branch transactions cost a bank about ₹70-75 per customer while ATM transactions cost about ₹15-16. However, internet and mobile transactions reduce costs to less than ₹2 and ₹1 per customer respectively.<sup>6</sup> With an eye on efficiency, banks are adding branches in unbanked areas and closing offices in metro or tier-1 cities where digital adoption is higher.

**Figure 2: Count of Commercial Offices (Branches) for Indian Banks, Bank Group Wise, 2014-2018**



Source: Capgemini Financial Services Analysis, 2018; Reserve Bank of India – Website, Accessed November 28, 2018

## Branches Retain a Critical Role for Customers

Although some bank branches are closing, others continue to play an important role. In India, physical bank branches dominate banking channels, with 94% of retail banking customers having visited a branch at least once in the past 12 months. Only 51% of retail banking customers have a reliable online banking experience with their primary financial institution, and only 9% use mobile banking for everyday transactions.<sup>7</sup>

What deters banking customers from digital channels?

- Threats such as hacking, sniffing, and spoofing expose banks to security risks.
- India's financial literacy rate is still low, and customers don't know how to use e-banking facilities. Some customers may even fear losing money in online transactions.

<sup>6</sup> *Forbes India*, "Digital revolution in the Indian banking sector," Beena Parmar, August 12, 2017, <http://www.forbesindia.com/article/weschool/digital-revolution-in-the-indian-banking-sector/47811/1>

<sup>7</sup> India JD Power, "2017 Oracle J.D. Power India Retail Banking Study," July 03, 2017, <https://india.jdpower.com/press-releases/2017-oracle-jd-power-india-retail-banking-study>

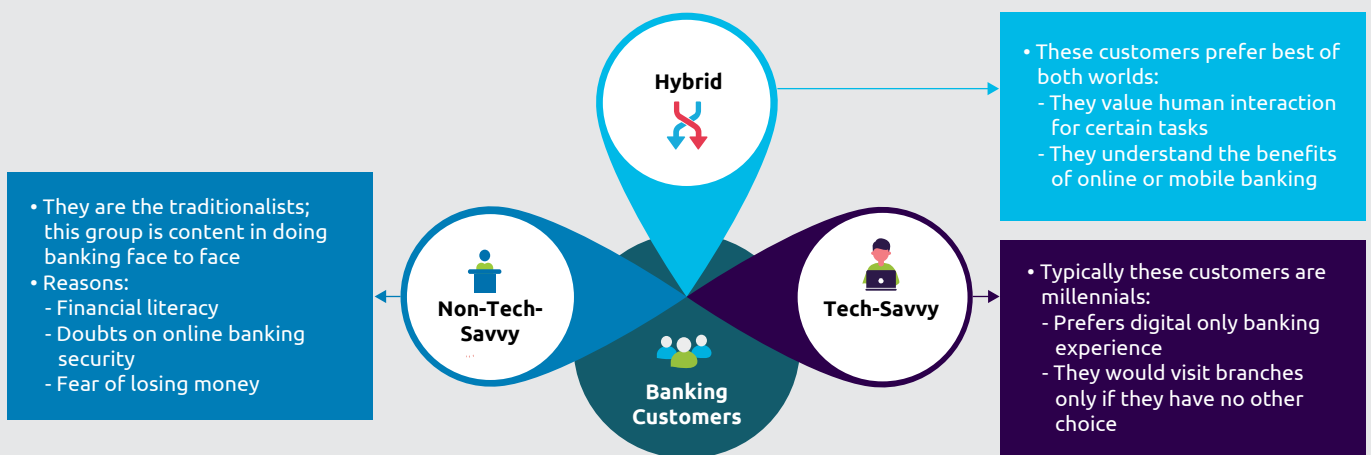
Amid multiple bank services, scenarios that require branch interactions still exist. Banks can classify the services for which customers visit branches into two categories:

**MUST Visit Scenarios:** This category includes situations where customers and potential customers must visit the branch. Most retail customers' cash deposits still take place at the branch, until banks provide facilities of ATM deposits or kiosks. Most regional banks do not offer a decent digital customer acquisition mechanism, so customers have no alternative but to visit a branch. Some miscellaneous services such as safe deposit boxes and coin deposit processing still require a bank branch visit. These interactions provide an opportunity for banking staff to interact and engage with clients thereby building better customer relationships.

**PREFER to Visit Scenarios:** This category includes transactions that customers prefer to handle in person. For some services, customers want to talk to a person and gain advice. In-person engagement at the branch is both an expectation for many customers as well as a real opportunity for the bank. These engagements are critical for corporates or business clients and are different from those of retail consumers because they often require the support of a human agent.

Data from a global banking executives survey shows that physical branches still play an essential role. A full 88% of respondents said physical branches add value to customers and will play a role in the future of banking. Moreover, 63% said they are planning to change their branch model in line with digital transformation.<sup>8</sup> In this digital world, present-day customers can be segmented into different groups based on their tech-savviness.

**Figure 3: Customer Segments Based on Tech Savviness**



Source: Capgemini Financial Services Analysis, 2018

**Non-Tech-Savvy:** They are the traditionalists; this group prefers or is content in conducting banking transactions face to face. They are not inclined to use technology for their banking needs because they are not adept with technology or are more comfortable with traditional ways.

**Tech-Savvy:** Typically, these customers are millennials; this group prefers to have digital only banking experience. They would visit branches only if they have no other choice.

**Hybrid:** These customers prefer the best of both worlds; they are not willing to forego traditional face-to-face banking, but they also see the benefits of online or mobile banking. They believe in technology and embrace it, but they also value human interaction and do not perform certain critical banking activities without it.

8 EFMA, "World branch report 2017," September 2017, <https://www.efma.com/study/detail/26974>



With customers split into different segments, banks will require more than one delivery method or a hybrid approach to satisfy all needs. A survey conducted in the United States shows that customers still value and prefer human interactions. Of the consumers surveyed, 77% said they seek face-to-face transactions with their bank when discussing lengthier topics. And, 53% said they like to pick up the phone for quick questions, rather than dealing with a digital solution.<sup>9</sup>

All these data points across the world zero in on the fact that, the impact of physical branches and human interaction cannot be ignored. The physical branch network can play a critical role in building trust, credibility, and providing financial advisory services, leading to improved customer loyalty. Because branches still handle most high-value transactions, they are quite critical for banks' success.



<sup>9</sup> *Business Wire*, "Across Generations, Consumers Prefer the Bank Branch for Financial Advice," June 07, 2018, <https://www.businesswire.com/news/home/20180607005177/en/Generations-Consumers-Prefer-Bank-Branch-Financial-Advice>

# An Optimized Mix of Digital and Physical Services will Fuel Bank Success

In today's world, a mix of physical and digital entities at all critical interaction points is necessary to ensure a positive customer journey. Banks that can craft a blend that effectively touches customer experience, operations, and delivery are most likely to thrive in a fast-changing world.

## Transformation of Bank Branch – Digitization

Banking executives will need to rethink traditional branches and integrate digital into their service models. Legacy branch distribution in an increasingly digital world is creating cost and operational challenges for banks. Getting the operating model right is critical. As customers demand frictionless banking, must digitize processes and eliminate paperwork and documentation. Strengthening the digital infrastructure will help customers resolve simple problems quickly and will redirect to human advisors for more complex issues or transactions.

As banks continue to invest in technology, the value of human interactions remains a crucial success factor. Banks must prioritize human interaction to build trust and advisory-related services. Additionally, employees and sales personnel must upskill to deliver high-value solutions to customers and to ensure a positive and consistent customer experience.

**State Bank of India** has set up 257 digital *sbiINTOUCH* branches aiming to offer advanced banking services such as instant loan approvals and assistance in choosing investment portfolios. These branches provide customers with an audio-visual experience with the added ability to print, scan, and share documents using touchscreen controls. The solution helps SBI speed up transactional related activities by digitization and transform its communication model or human interactions for better customer loyalty, which will further help SBI improve cross-sales and upselling.<sup>10</sup>

**BBVA's Garanti Bank** has infused digital into nearly 500 branches in a short period, providing customers with an entirely seamless banking experience. This service model aims to increase sales capacity by allowing employees more quality time with customers. BBVA's customers need not waste their time in lengthy procedures and signing loads of documents. They can complete transactions quickly via corporate tablets available at customer representative desks at branches or by using their own mobile devices.<sup>11</sup>

Some banks have introduced self-service or assisted service models to reduce the time spent on transaction-only services. Customers are carrying out banking activities from in-branch self-service machines, such as ATMs, kiosks, etc. Banks are providing easy account openings, cash deposits, filling out loan applications, and a host of other services via these automated machines. Banks can reap many benefits from these self-service models, from a reduction in documentation time to greater transparency. Banks will be able to focus their human resources to more priority tasks such as interaction with customers, customer advisory, and building customer loyalty.

**Canara Bank** is moving to paperless futuristic banking via, *CANDI*, its digital banking branch that offers customers an end-to-end digital experience. *CANDI*'s humanoid robot answers basic customer questions about products and services. Moreover, the branch uses tools such as an onboarding application that allows customers to open a savings account immediately

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<sup>10</sup> SBI Website, <https://www.sbi.co.in/portal/web/personal-banking/sbiintouch>, Accessed November 28, 2018

<sup>11</sup> BBVA website, "Branch-digitization drive at Garanti hits the 500-mark," July 04, 2018, <https://www.bbva.com/en/garanti-branch-digitalization-drive-hits-500-mark/>

via fingerprint/ IRIS authentication. Customers may also take advantage of video banking to interact with remote-site subject matter experts about topics such as retail loans or corporate advances.<sup>12</sup>

**Kotak Mahindra Bank's** digital branch offers a seamless, paperless, secure, and a smart banking experience through customer self-service and assisted-service models. The digital branch includes an e-lobby that offers 24x7 access to cash withdrawals and deposits, as well as check deposit machines. The quick service touch-kiosk makes banking easy, effortless, and quick and also offers extended banking hours for basic services. Every Kotak digital branch features a dedicated lounge for customers to discuss their portfolios and investments.<sup>13</sup>

## Humanizing Digital Experiences

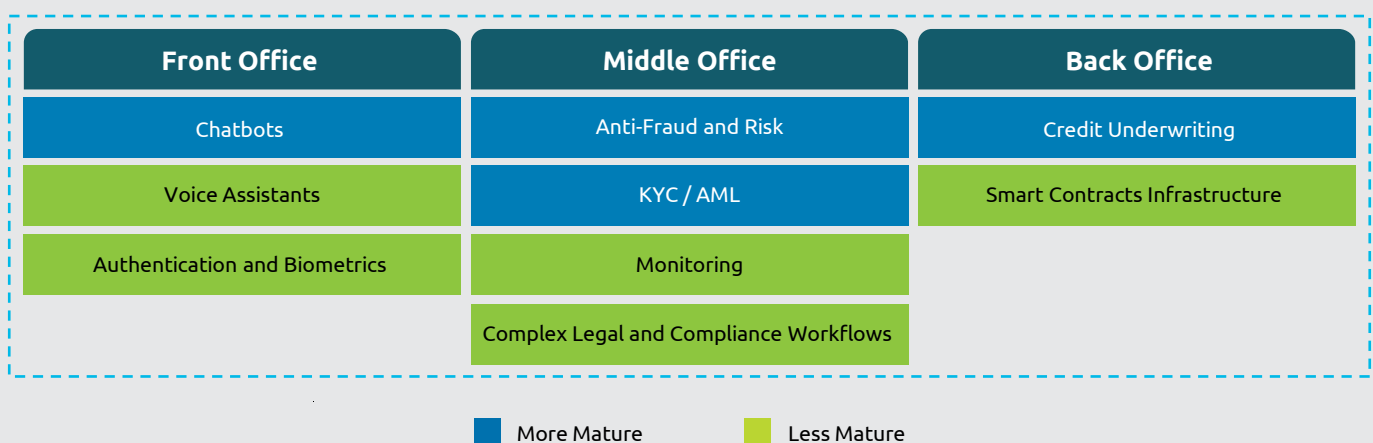
Today, most customer interaction points are digital, and banks struggle to convert this traffic into sales and efficiency. But how? Both the human touch and digital tools are essential. Video banking as a service delivery model provides a great opportunity for banks to achieve this goal.

**Standard Chartered Bank India** has introduced a digital channel with a human touch, where customers can speak to banking consultants on a real-time basis. Using an online app, priority and premium clients may contact bank consultants via secured text chat, audio call, or video channel for assistance on bank products and offers, or with service-related questions.<sup>14</sup>

One of the largest banks in Asia, **DBS**, offers a unique *café and branch* concept that allows customers to perform both cash deposits and withdrawals at cash services machines. It features a VR corner to guide customers on retirement planning products. It uses Video Teller Machines (VTMs) to offer non-cash banking services such as the issuance or replacement of internet banking tokens or debit cards. Customers who require help can access instant face-to-face assistance via live video.<sup>15</sup>

Banks are investing in technologies – such as artificial intelligence – that are data intensive, systematic, and critical to profitability, customer experience, productivity, and compliance.

**Figure 4: Artificial Intelligence Use Cases in Banking**



Source: Capgemini Financial Services Analysis, 2018; Autonomous NEXT, "Augmented Finance & Machine Intelligence," <https://next.autonomous.com/augmented-finance-machine-intelligence>

12 *Hindu Business Line*, "Canara Bank forays into paperless banking launches first digital branch in Bengaluru," July 27, 2017, <https://www.thehindubusinessline.com/money-and-banking/canara-bank-forays-into-paperless-banking-launches-first-digital-branch-in-bengaluru/article9791190.ece>

13 Kotak Bank Website, "Kotak Mahindra Bank Brings New Age Branch Banking to Jaipur," April 04, 2018, <https://www.kotak.com/content/dam/Kotak/about-us/media-press-releases/2018/kotak-mahindra-bank-brings-new-age-branch-banking-to-jaipur-04042018.pdf>

14 Standard Chartered Website, <https://www.sc.com/in/bank-with-us/video-banking>, Accessed November 28, 2018

15 DBS Website, "DBS reimagines banking with lifestyle space for "tech" generation," November 10, 2017, [https://www.dbs.com/newsroom/DBS\\_reimagines\\_banking\\_with\\_lifestyle\\_space\\_for\\_tech\\_generation](https://www.dbs.com/newsroom/DBS_reimagines_banking_with_lifestyle_space_for_tech_generation)

Artificial intelligence enables banks to understand, analyze, and draw conclusions from customer data – a feat that was not easily possible in the past. Credit underwriting, anti-money laundering (AML), and fraud detection are gaining a lot from AI use.

SBI and Bank of Baroda have started using AI to improve efficiency, detect human behavior, and reduce operational costs.<sup>16</sup> CreditVidya (a data underwriting FinTech firm) relies on AI to build credit scores for loan disbursements. It has partnered with several big banks such as ICICI, SBI, and RBL.<sup>17</sup> Global bank HSBC is harnessing AI to tackle financial crime more quickly and cheaply by bringing in robots to help it spot money laundering, fraud, and terrorist funding.<sup>18</sup>

Biometrics, such as voice or face recognition, is also being used in applications for authorization. Soon, multilevel authentication may become the norm by combining biometrics with other methods of user verification.

Conversational AI-based voice assistants and chatbots have the potential of humanizing the banking experience. Artificial intelligence-based chatbots and assistants have become the fastest-growing category of consumer technology and a mainstream way for people to interact with brands. BBVA, USAA, and Barclays are investing in virtual assistants to help customers make payments, check balances, find product and service information, handle customer questions, and resolve issues. Since data, analysis, and insights drive the virtual assistant, the banking experiences it can offer go beyond those of a teller or even a branch manager. Given the vast scale of information at the assistant's virtual fingertips, it can provide more in-depth, comprehensive answers than a human bank representative.

Virtual assistants do not replace the need for human interaction, as even the smartest systems cannot support all the possible customer interactions (during exceptions, the platform should be able to provide a seamless hand-off to a live agent). The humanizing element will happen as the technology matures, and virtual assistants can understand, comprehend, and assist each customer's goals.



<sup>16</sup> *Times of India*, "SBI, other banks using AI big time to improve efficiency, cut costs," July 01, 2018, <https://timesofindia.indiatimes.com/business/india-business/sbi-other-banks-using-ai-big-time-to-improve-efficiency-cut-costs/articleshow/64813454.cms>

<sup>17</sup> Creditvidya website, <https://creditvidya.com>, Accessed November 28, 2018

<sup>18</sup> *Financial Times*, "HSBC brings in AI to help spot money laundering," Martin Arnold, April 09, 2018, <https://www.ft.com/content/b9d7daa6-3983-11e8-8b98-2f31af407cc8>

**HDFC Bank's** EVA chatbot works on AI technology and has natural language capabilities that determine the correct taxonomy of the user's input. It pairs this with cognitive learning capabilities that extracts, understand, and act upon user queries.<sup>19</sup>

**Kotak Mahindra Bank's** *Keya* is an AI-powered voice-bot integrated with Kotak's phone-banking helpline. *Keya* interprets the caller's intent, verifies it, and then offers relevant solutions resulting in greater call routing accuracy, reduced call time, and improved customer satisfaction.<sup>20</sup>

## Hybrid Advisory

When consumers seek financial planning services, professional advice is often the best bet. However, personalized financial advice may require research, data, and time, which can be daunting for a human, financial advisor. Robo advisors structure a portfolio according to a customer's preferences and optimize the risk-return to deliver maximum returns.

Although machines and bots function more quickly than their human counterparts, the human element is critical in real life. Technology cannot understand customer feelings, because it lacks emotional quotient. Conversely, customers trust the advice of a person (advisor) over a machine when it comes to their hard-earned money – and seek human guidance for complex financial planning.

So, a mix of both worlds is required, and hybrid advisory a prime example of phygital service. Using hybrid advisory, banks can provide personalized financial planning, while keeping the human touch in their financial advisory services.

**Vanguard** offers robo advisory support in addition to human financial advisory service for clients with US\$ 50,000 to US\$ 500,000 in assets.<sup>21</sup>

New York-based online investment company **Betterment** began with digital-only robo advisors, but as customers amassed more wealth, their questions became more sophisticated. Therefore, to cater to their demands, premium members now get unlimited meetings with certified financial planners.<sup>22</sup>

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19 HDFC website, [https://www.hdfcbank.com/htdocs/common/Industry\\_Academia/innovation.html](https://www.hdfcbank.com/htdocs/common/Industry_Academia/innovation.html), Accessed on November 28, 2018

20 Kotak Press Release, "Kotak Mahindra Bank launches *Keya* – the First Voicebot in Indian Banking," April 02, 2018, <https://www.kotak.com/content/dam/Kotak/about-us/media-press-releases/2018/kotak-mahindra-bank-launches-keya-the-first-voicebot-in-indian-banking-02042018.pdf>

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22 Ibid.

# Conclusion

Recognizing both the challenges and opportunities, Indian banks are investing in digitalization, emerging technologies, and data utilization techniques with good results. While there is this rapid uptake of digital banking services, a segment of customers continues to prefer branches and human interaction over technology. Even those who use digital channels for routine activities prefer human interactions for some specific banking tasks or services. While digital transaction volume is higher than that of branches, transaction values are higher for branches in most cases, especially for corporate transactions. With the ability to build trust, credibility, and loyalty with customers, human interactions and advice cannot be ignored.

Therefore, a better model is needed – one that provides the best of both worlds by combining physical interaction with digital services. Realizing the opportunity, some banks today offer phygital services by transforming their branches and humanizing digital experiences. As the industry continues to head down the open banking path, established firms can partner with FinTechs and third parties to provide innovative phygital services. The onus will be on banks to prioritize customer experience and to provide services that empower customers in a way that suits their needs and preferences.

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