Enabling touchless operations in financial services using next-gen technologies

Abstract

Over the past couple of decades, financial institutions have transformed themselves to offer digital services to meet new customer expectations. However, most financial institutions have bolted on digital capabilities on existing infrastructure to offer a digital interface to their customers instead of enabling end-to-end digital transformation. As a result, even today, a high degree of manual effort is required to offer financial services resulting in poor experience, compliance challenges, and increased costs. Given the ongoing pandemic, financial institutions must adopt straight-through processing to eliminate manual touchpoints and offer frictionless customer experience. This will require banks to embrace next-gen technologies such as advanced artificial intelligence (AI), machine learning (ML), speech-to-text, and computer vision (CV) as well as adopt low code and no code platforms, and machine-first principles. This white paper discusses the operational challenges faced by financial institutions in enabling a shift to touchless operations and suggests ways to resolve them through advanced technologies.

Touchless operations: An urgent imperative for financial institutions

The financial services industry has transformed rapidly to offer customers digital banking services and enhanced digital experience. However, in the rush to quickly digitalize the customer experience, banks have ended up adopting band-aid or quick fix solutions that provide a digital interface but fail to address the complexities in back-office processes.

With the COVID-19 pandemic advancing the deadlines for completing digital transformation initiatives, financial institutions are also coming under pressure to introduce touchless operations, especially as the restrictions triggered by the virus look set to continue. Digital is thus no longer a value addition but a mandatory upgrade to stay relevant among customers. Accomplishing this needs technology-driven advancements in operations with a focus on eliminating complexities and shortcomings in the underlying business systems and processes.

Enabling touchless operations is often interpreted as a need for digital transformation where digital solutions are expected to convert a paper-dominated process to a completely digitalized flow of data and process. But a shift to touchless operations entails much more than just going paperless—it involves studying complex business processes and implementing next gen solutions using a well-designed transformation framework.

In our view, financial institutions must define a transformation approach founded on four pillars:

- **Eliminate:** remove non-value adding process elements and reduce transaction volumes through proactive solutions.
- **Simplify:** reengineer and standardize legacy processes to streamline the customer journey.

- **Digitalize:** increase digital adoption to enable end-to-end digital journeys.
- **Automate:** upgrade IT systems leveraging AI technologies such as ML, natural language processing (NLP), CV, and speech-to-text and use low code application platforms (LCAP).

Reasons for manual touchpoints in financial services

Traditionally, banking has been driven by manual operations. Hence, scrutinizing the underlying processes to understand the need for manual touchpoints, the drawbacks, and constraints in existing applications is imperative to identify the potential roadblocks in the journey toward touchless operations. In our experience of working with global financial institutions, banks face critical impediments in transitioning to touchless operations.

Standalone IT applications

Non-integration of legacy IT applications and absence of systemic workflows can cause breaks in the flow of data and information required for processing a business request. Implementing bridging processes or business process automation workflows and connectors to make legacy applications 'talk' to each other is imperative for touchless operations.

Paper and image processing

Processing paper-based applications and customer requests is the primary challenge while going paperless. While images and documents can be digitally scanned, a human agent has to manually peruse the scanned image to extract relevant data needed to process the request.

Human judgment

Complex and critical business processes often require subject matter experts to make decisions based on their knowledge and domain expertise. In addition, exception handling also requires human judgment.

Unstructured documents and notes

Extracting data and deciphering customer requirements from unstructured documentation require human intervention in most cases. Investigations into past customer interactions will also warrant reading through notes created by human agents, which are typically unstructured and free form.

Human touch preference

Customer-facing operations such as contact center interactions and default collections have been traditionally human-centric as most customers find it easier to talk to a human agent to resolve queries. This is especially true when online banking systems are not user-friendly and fail to resolve customer queries.

Absence of data-driven solutions

Banking applications and processes are heavily regulated and require thorough verification and validation of customer data while processing requests. This increases the dependence on human judgement and manual interventions. The absence of a 360-degree view of the customer data often restricts banks from getting a unified view of customer complaints, needs, and behavior, resulting in a quick fix that does not address or resolve the problem.

Moving to touchless operations: Next-gen technologies show the way

Traditional technologies and application landscapes, though instrumental in the transition from age old banking operations to IT backed operations, have not addressed the gaps in delivering seamless banking experience and efficient service. To achieve touchless operations, banks must consider leveraging advanced capabilities built using next-gen technologies. Advanced transformation backed by machine-first principles entail machines having the first right of refusal for all operational tasks. Adopting next-gen technologies such as AI, advanced analytics coupled with cloud technology, advanced machine intelligence, and LCAP, will reduce IT involvement in orchestrating and managing business processes. This in turn will help enable faster, accurate, and cost effective changes with minimal effort from business SMEs. Leveraging advanced technologies to eliminate manual touchpoints in operations will facilitate the transition to touchless banking (see Figure1).
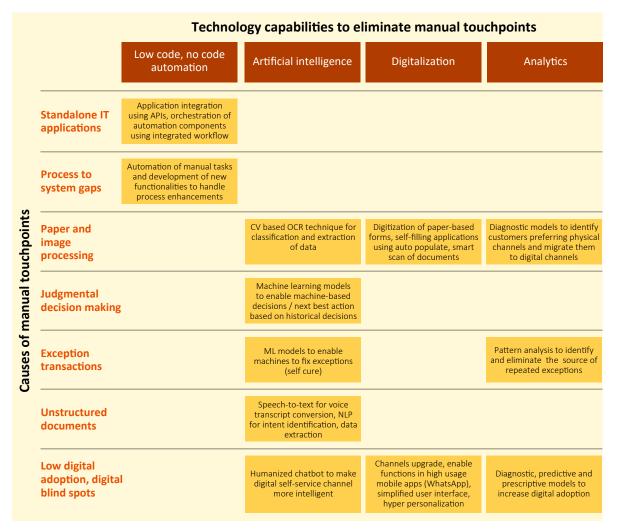
Technology capabilities to eliminate manual touchpoints			
Low code, no code automation	**Artificial intelligence**	**Digitalization**	**Analytics**
Standalone IT applications Application integration using APIs, orchestration of automation components using integrated workflow			
Process to system gaps Automation of manual tasks and development of new functionalities to handle process enhancements			
Paper and image processing	CV based OCR technique for classification and extraction of data	Digitization of paper-based forms, self-filling applications using auto populate, smart scan of documents	Diagnostic models to identify customers preferring physical channels and migrate them to digital channels
Judgmental decision making	Machine learning models to enable machine-based decisions / next best action based on historical decisions		
Exception transactions	ML models to enable machines to fix exceptions (self cure)		Pattern analysis to identify and eliminate the source of repeated exceptions
Unstructured documents	Speech-to-text for voice transcript conversion, NLP for intent identification, data extraction		
Low digital adoption, digital blind spots	Humanized chatbot to make digital self-service channel more intelligent	Channels upgrade, enable functions in high usage mobile apps (WhatsApp), simplified user interface, hyper personalization	Diagnostic, predictive and prescriptive models to increase digital adoption

(Left axis label: Causes of manual touchpoints)

Figure 1: Shift to touchless banking - Technology capability mapping to eliminate manual touchpoints

Low code, no code automation

Fragmented manual business processes are common in the operational landscape of financial institutions. Dependence on legacy systems or third-party systems with limited integration often leads to tasks such as data entry during account-opening and sanction-screening of third party systems being performed manually. These low volume processes do not justify a complete IT

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overhaul. However, by leveraging LCAPs in certain areas such as procedural task automation, control automation, and migration of existing end user computing (EUC), banks can reap the benefits of automation with limited IT involvement. This will facilitate faster implementation at a lower cost by reducing dependence on coding skills.

Artificial intelligence

Dependence on human knowledge and decision-making is a key reason for manual business operations. Financial institutions accept digitally scanned documents but need manual effort to review the document and extract data from it as they lack the technology levers to automate these tasks. Using advanced AI technologies like CV, intelligent chatbots, NLP, and ML can resolve these challenges. For instance, in service requests such as a change in address, phone number , or an increase in the credit limit, humanized chatbots (instead of FAQ chatbots) can enable intelligent self-service. Virtual assistants employed to aid human agents can be trained to become smarter by using ML and NLP for quick and efficient customer interactions. Speech-to-text tools can extract information from voice interactions to serve customers better. Computer vision can be a game-changer to process digitally scanned documents or images without human intervention, especially in functions like loan origination and trade finance. ML models with NLP capabilities can be trained to manage complex decision-making and exception-handling in areas like credit card disputes and fraud investigation and resolution.

Advanced analytics

Data-driven business operations in financial services demand 360-degree customer data analysis to holistically serve customers, improve experience, enhance operational efficiency, and check fraud. Historical transaction data can form the basis for building and deploying descriptive, predictive, and prescriptive analytical models analytical models to achieve touchless business operations. Prediction models can be deployed to proactively identify and address customer needs. Predictive and prescriptive analytics can inform collection strategies to enhance collection efficiency while diagnostic, predictive, and prescriptive models can be used to measure and improve digital adoption and identify customer preferences. Pattern analytics can help detect anomalies in transactions to prevent fraud.

Digitalization

Though most banks offer digital channels, certain customer segments still prefer physical interactions resulting in paper-based transactions and communications across some functions. Equipping digital channels with smart speakers (to enable voice-enabled interactions) and messaging channels such as WhatsApp or Facebook Messenger (for real-time updates) can help banks deliver faster, personalized service, improve transparency, and enhance experience for such customer segments.

Moving to touchless operations is an aspirational goal for financial institutions and comes with its own challenges. Embracing the right approach spanning a robust implementation roadmap and governance framework bolstered by fail-fast and learn-fast mindset is critical to a successful shift to touchless banking operations.

The bottom line

The post-pandemic world will see growing demand for contactless, digital customer experience. Touchless operations are the key to meeting this demand and the capability to offer seamless digital experience to customers will differentiate the leaders from the pack. Touchless operations are thus no longer a matter of choice for financial institutions, but a key ingredient of the recipe for success in the post-pandemic era, and the sooner banks make this shift, the better.

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Awards and accolades

#1 IN CUSTOMER SATISFACTION — 2020/21 EUROPE — Whitelane Research

top EMPLOYER — NORTH AMERICA 2021 — CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

top EMPLOYER — GLOBAL 2020 — CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

ASIA'S OUTSTANDING COMPANIES **POLL 2020** — ASIAMONEY

STEVIES 2020 — STEVIE AWARD

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