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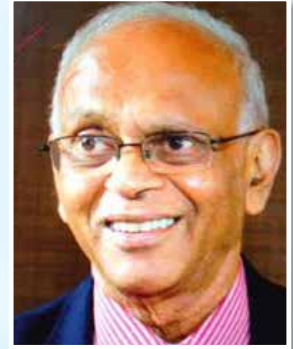
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Future is for Innovations



Welcome to Finnoviti 2021, the Carnival of Innovations!

Among all the downsides that the pandemic has brought in in its wake of spreading across the globe, there is one inspiring aspect - that the world has become much smaller and closer and the virtual world is keeping us bonded as ever.

'The best way to predict future is to create it,' have been the famous words of the renowned computer scientist Alan Kay.

One thing is for sure. The pandemic had accelerated innovations to full throttle, especially so in the BFSI organizations. These innovations were either forced or probably inspired by the opportunities of unprecedented adoption of the digital or the challenges of survival. One can indeed relate this to the race for inventing a vaccine against the corona virus.

Our virtual conference is an example of appropriate and successful digital adoption.

Once again it is time for the innovators like you to share and discuss your innovations with the world and understand how the world is looking at things and how institutions are reimagining so that they can make a marked difference. That is why we are organizing Finnoviti 2021 with the theme of World of Next

From empowering people to consult doctors from home, facilitating farmers to use apps to connect to retailers or source fertilizers, facilitating customer onboarding sitting at home or powering smart cities with payments are all results of the out-of-the-box thinking. We saw a lot of interesting innovations in the payments space alone when contactless payments became the norm and the lending business got a strong thrust with increase in the number of personal loans and subsequent strong credit off-take.

The lending business has come a long way from where the helpless bankers were unable to lend to good customers with no credit records to a situation where digital lending based on analytics and AI and social media data could offer a loan to a simpleton in a distant village without the traditional documents.

Fintechs which were regarded as competitors by the financial services institutions are now becoming complimenting partners by combining domain expertise and technology expertise. This obviously affords a new realm of possibilities in the financial services.

While these are exciting times, we must remember that the pandemic has set the entire financial services industry back by a few years in terms of growth. Nevertheless, let us hope the next stage of growth is going to be superfast. Are we ready for a leapfrog? I believe we are and let us get... set... and go...

I hope you find this Compendium of Innovations in the BFSI sector, carefully handpicked from among the top 100 nominations received by us inspiring enough to be emulated and followed up. The future is already building.... and I invite you to place your innovative bricks into this structure and keep sharing and learning.

Happy Innovating....

Babu Nair
MD, Head Research and Founder
Banking Frontiers



Over the last few years, rapidly advancing technologies, evolving customer expectations and a changing regulatory landscape are opening doors to disruptive innovation in financial services. The COVID-19 pandemic and resultant regulatory and market responses have triggered significant structural and behavioral changes across the financial services industry. As a response to these challenges, financial institutions have adopted innovation at a pace and at a sophistication seldom seen before. Despite the investments made in technology across the industry, financial institutions continue to be burdened by legacy infrastructure as well as lack of clarity and conviction on how emerging technologies and innovations will shape and impact their strategic direction. Innovation is but one component of this equation, and the real challenge for financial institutions is to create business models around these innovations. The opportunity and capability for transformative innovation are within reach for those willing to rise to the challenge. This will involve transforming financial infrastructures, operating models, and value propositions.

Although most technologies required to drive innovation are widely available and quite mature, financial institutions are discovering creative ways to use these technologies to overcome the challenges posed by the pandemic. This has led to the digitization

of financial institutions transitioning from conventional banking model to Banking as a Service “BaaS” model. Financial institutions are innovating in areas such as contactless banking solutions, hyper-personalization of products and services, end to end digital lending, alternative data based risk assessment, omni-channel delivery models, AI/ML enabled recommendation engines, and customized wealth management solutions to provide a holistic and enhanced customer experience. India’s data dividend, in terms of increasing digital visibility of thin filers, new to bank as well as underbanked SME and retail segments, is likely to act as a catalyst for mainstreaming these innovations. Technology has democratized businesses by creating access across all levels and by creating a level playing field.

Finnoviti has always been about recognizing ideas, rewarding innovation and making an impact. This Report provides sector-specific innovation use cases across six critical sectors—Commercial Banks, Specialized Banks (Small Finance Banks and Payment Banks), NBFCs, Insurance Companies, Asset Management Companies and Brokerage Houses - and details how these could influence and architect future operating models.

This Report aims to provide financial services players with a perspective on:

- New value propositions that financial institutions could offer building on innovation themes recognized in this Report
- Evaluate cross-sectoral opportunities that emerging technologies and innovation might create
- Identify and evaluate capabilities that innovation and emerging technologies could unlock, individually and in combination to result in a multiplicative impact

We hope this Report sheds some light on the impact of emerging technologies on the future of financial services and helps decision-makers craft responses that balance innovation with the protection of consumers, markets, institutions, and society in a profitable way.

Monish Shah
Partner, Financial Services Consulting,
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Turbo

Tata Motors Finance Co's Turbo is a digital customer on-boarding sourcing platform. As a captive financier of Tata Motors, Tata Motors Finance Co extends finance to customers of Tata Motors for vehicle purchase. The company engages with customers through its field teams to collect data and documents. Turbo is a digital solution that automates the full customer on-boarding process leading to multiple benefits.

Turbo combines mobility, analytics, AI, OCR, multiple internet-based APIs and document management to deliver an integrated platform. Customers are delighted with features including chatbot-based sales assistance, e-Agreement, e-NACH, faster processing, automated customer feedback, and risk-based pricing. Before the implementation of Turbo, the process of on-boarding included multiple manual touchpoints, requiring a field team member to visit the branch to drop off the physical documents, while the document validation was done manually, so many people had to enter data and check files. Besides, there were no automated credit approval rules.

Turbo ensured digitization of all processes end-to-end from lead to disbursement. The entire supply chain has been re-engineered in order to meet the business expectations of reduced time to market, decreased cost and improved customer satisfaction. The system now provides a state-of-the-art digital platform for managing vehicle finance business integrating all the existing 111 disparate applications onto one platform. Automation of validations is through API calls and OCR while customers can receive a loan decision in 3 minutes and end-to-end processing completed within less than 2 hours. There is reduction in manpower required and the platform is integrated with Tata Motors CRM application.

SAM

Tata Motors Finance Company is a captive finance company that exclusively takes care of the financing transactions of Tata Motors. The company has developed SAM, which is an industry first, unique chatbot that provides instant loan decisioning to Tata Motors' customers. Customers can check their loan eligibility on the company's website, social media or Customer One application and obtain their loans directly.

The company wanted to develop a platform where customers can interact with the company's system and get the details without any human intervention. The chatbot is available both on the website and through social media during paid campaigns, using the Customer One application and via SMS campaigns. It requires only minimal information to make a decision. Customer details are shared with credit information bureau for confirmation but there will be no bureau footprint of the loan enquiry hence not impacting the customer's bureau report or score. A customer does not require to register to check eligibility for a loan and anyone can interact with the chatbot to know the eligibility and the results are available in seconds.

Tata Motors Finance perceives the following benefits by deploying the chatbot:

- ◆ Growth in market share and revenue in passenger vehicles and small commercial vehicles segments
- ◆ Supports in generating more revenue from direct sales
- ◆ Cost-effective and time saving
- ◆ Easy to use and accessible from anywhere
- ◆ Enhanced experience for dealer and sales teams
- ◆ Customer delight
- ◆ Instant decision without human intervention
- ◆ Improved TAT from lead generation to decision making

CRM Recommendation Advisor - Next Best Action

With the pandemic-related constraints on supply and demand, there was ever more need for data to pinpoint the target market. HDFC Bank felt that although product level propensities were available, the aim was to identify the order of importance. The objective was to develop an arbitration engine that would orchestrate, not only propensities, but also the intent captured through campaign responses, digital footprints, and web-based behavior. The bank gathered insights from different recommendation frameworks:

1. **Single Layer Simple Recommender System:** Primarily used product propensity scores and skewed towards products that had the largest uptake.
2. **Collaborative filtering based on users and items:** This has proved ineffective for banking product bouquet, that includes fewer SKUs and necessitates more time and resources.
3. **Multi-layer Deep Neural Network Recommender System:** Products with lower monthly conversions are typically ranked low among customers, which results in their under-representation among the top 3 rankings.

Features:

- ◆ The whole process takes 3-4 days over 3 steps – how features are extracted, transformed and scored
- ◆ Less than 10 GB of raw data is consumed
- ◆ Processes 100 GB of data and generates propensity scores
- ◆ Consumes a small amount of computer power

After the initiative got implemented, the bank saw 35% increase in conversion rate despite reducing recommendations with no loss in absolute conversion. Also, overall CRM leads grew by 37% since the launch in October 2020 and 90% of the leads generated in CRM between October and November were captured by NBA recommended base. Another aspect was that 91% of all leads generated were for products featured in NBA's top 3 lists. Besides, there was 8X increase in actual conversions.

Warehouse Commodity Finance on Mobile

HDFC Bank had forayed into commodity focused lending, supported by warehouse receipts. These receipts are issued by the bank authorized by CWC/ SWC/ private warehouses to farmers and traders. The bank offers this product as short-term loan to the farmers for their seasonal purchase needs and other related activities.

The bank has launched the first of its kind 'Warehouse Commodity Finance on Mobile' App for agri commodities traders, processors and farmers who wish to avail of finance against agricultural stocks in warehouses and godowns. The application simplifies and transforms the business process on to a digital platform that helps the bank conduct business in a seamless manner by integrating the solution with the bank's ecosystem. Traders, processors and farmers are now able to view and manage transactions on their smartphones almost anywhere, any time!

The bank lists the benefits of the system:

- ◆ Reduced need for the customer to visit a branch every time they need to request a disbursement or loan for processing their request and so minimised the reliance on relational management and operations, aside from the risk of physical documents getting lost on the way.
- ◆ Total TAT for customer requests is reduced from several hours to under 30 minutes.
- ◆ The estimated cost saving for the bank is ₹6.11 million on a yearly basis.
- ◆ Customers can undertake transactions through mobile, without having to visit a branch.
- ◆ Online application for warehouse receipt pledge loans.
- ◆ The liquidation of warehouse receipts takes place in real-time.
- ◆ The customer has the option to download loan statements at his convenience.
- ◆ Manual processing by the bank is eliminated.
- ◆ Provides self-service to customers.

Project Shikhar

SBI Card, the State Bank of India subsidiary, experienced difficulty in distributing its products - SBI credit cards - because it failed to leverage the bank's customer base of more than 500 million. SBI Card was entirely dependent on the bank's walk-in customers, leaving out an entire segment of those not visiting the branches. The bank wanted to make use of the data of untapped eligible customer segment, boost the value for its customers and increase the market share for the SBI Card. It undertook 'Project Shikhar' for the purpose. The objective was to achieve a leading position in the credit card industry and better synergy with the subsidiary. The bank was also interested in providing credit cards to good customers without a credit history. Thus, a comprehensive ML model was designed in order to increase the activation and spend, while lowering delinquency.

Highlights of ML model:

- ◆ One single comprehensive model to take care of activation, spend and risk
- ◆ Ensemble of 5 different existing models
- ◆ Artificial neural network
- ◆ 830+ new data points related to ATM complaints, OTMS alerts, AML-CFT risk category, threshold limits, TRV etc
- ◆ Transactional data of 12 month
- ◆ Customer risk behaviour (IRAC) history of 36 months

With Project Shikhar coming into being, SBI Card could issue 2.95 million cards with parent State Bank of India earning a commission of ₹2.09 billion. The delinquency was recorded at a low of 0.55% and lead conversion at a high of 13%. The project also resulted in bancassurance channel of the bank sourcing 370,000 applications per month even as approvals rate touched 72% (100% more cards through banca channel). The card base today stands at 3 million and of the 9,34,287 credit cards issued in FY20, 51% of customers were first timers, pensioners and self-employed people accounted for 32% and there was 47% penetration in semi-urban and rural areas.

Project Shikhar - Recommendation Engine

Under its Project Shikhar, State Bank of India has developed a Recommendation Engine as a transformative tool for providing financial advice to a wider audience using AI. The solution uses collaborative filtering to compare products a customer holds with their peers, identifying products the customer is most likely to need/want.

The bank says the Recommendation Engine personalizes web experience, telling a person what to buy (Amazon), which movies to watch (Netflix), whom to be friends with (Facebook) etc. Based on the information gathered on shopping/ watching/ listening patterns, the engine predicts what people might like in the future based on their behaviour patterns. The Recommendation Engine, the bank claims, can benefit a number of areas within banking, including personalisation, advisory services, improved support, and security services.

The memory-based CF cannot handle huge and sparse data and therefore, model-based CF is being adopted in the Recommendation Engine. As Singular Value Decomposition deals with sparsity in data, this technique was chosen among model-based CF approaches. Dimensionality reduction is applied to missing/sparse data and these models demonstrate that attitudes and preferences can be determined by a small number of hidden variables related to a user.

The Recommendation Engine can create a focused marketing approach and it has facilitated booking of business of more than Rs70 billion has been booked. It also helped offer multiple p-segment products on a single model, increase customer retention and satisfaction and high-quality business growth and value creation.

It could also facilitate a 360° view of customer needs, targeted cross-selling, sales of Rs75 billion in liability products and customers received customized financial advice / recommendations. The bank also experienced increased customer engagement and customer appeared to have better knowledge about products suitable for them.

Digital Execution of Loan Documents

The process facilitates signing and stamping of loan documents remotely by the borrower, co-borrower or guarantor without them visiting the bank. It is implemented at the retail level for mortgage loans.

In the current banking scenario, execution of a loan document requires procurement of stamp paper, personal visits by the borrower, co-borrower, or guarantor to a bank branch, physical storage of the documents, etc. This requires significant time commitment from both branches and customers. The bank felt that it was necessary to create a digital process of signing and executing loan documentation.

The bank created a Digital Document Execution Platform, a web-based API for the purpose. At least 3 agencies collaborate in this process: Union Bank of India as the lender, National e-Governance Services (NeSL) as the repository for legal evidence, and Stock Holding Corporation of India (SHCIL) as a stamp collector for documents.

Impact of the initiative:

- ◆ Paperless documentation process integrated with the bank loan system using API
- ◆ Real-time generation of an SHCIL stamp duty certificate inscribed with one unique stamp duty number
- ◆ Execution of documents using digital signatures with e-sign provided for borrower's signature
- ◆ Stamp duty certificate that can be used only for one electronic contract
- ◆ The NeSL IU process validates the execution of the stamp in a secure and tamper-proof manner
- ◆ Nearly 2500 branches are now active for executing loan branches online from any remote location
- ◆ Anywhere and anytime processing of loans
- ◆ Processes documents without physical signature in 6 minutes
- ◆ Reducing contract time by 80% and turn-around-time by 99%
- ◆ Increase productivity by 340 times
- ◆ Significant cost savings in terms of storage and resources
- ◆ The need for customer signature on multiple pages (approx 20 to 30) are avoided
- ◆ Increase in employee satisfaction
- ◆ Improved 'ease of doing business'
- ◆ Commitment to the bank's 'Go Green' initiative

Predictive Early Warning Signal Model

Union Bank of India has implemented an innovative process to replace its previous Corrective/Curative Monitoring with a 'Proactive Monitoring' approach by which the bank can take precautionary action before an account turns bad by using digital monitoring to detect early stress signals. This means the monitoring is proactive in nature. What is crucial to the success of this approach is an efficient coordination between monitoring, appraisal and sourcing departments, which in turn helps maintain a healthy asset portfolio for a lending institution. The Early Stress Signals (ESS) system collects data from multiple sources, which enables the bank to get a consolidated view of the customers' loan accounts and make better decisions. It helps improve monitoring. The system itself sends out alerts and each branch/office and the staff there are able to access these alerts. Dependency can be achieved at a centralized level now, and is easy to maintain. Also, user interfaces are customized with further drill down of analysis / information by using centralized MIS dashboards.

In line with the proactive monitoring approach, the bank has built and defined ESS logic using 29 financial and technical alerts. With this, it moved from 'Corrective/ Curative Monitoring Approach' to a 'Proactive Monitoring Approach'. Automation of the ESS process has made the follow-up process easier and helped the branches devote more time to other banking operations. This process implementation has played a vital role in increasing employee satisfaction levels throughout the organization.

More than 20% of stressed accounts existed in the bank in June 2018, which was reduced to 17% and further to 9.46% by February 2020, thereby achieving a reduction rate of more than 50% in total stressed accounts.

Hyper-personalized Video

Aegon Life Insurance Co has created a hyper-personalized video - a short video clip - that showcases the customers' personal details and details of his policy. The clip is unique to each customer and comes in more than 1000 variations.

The company faced the cumbersome task of responding to requests from customers via phone and email relating to their policy document and features and found it difficult to identify important policy details in a 27-page policy document with fine print and technical clauses. There are no tools to summarize the policy and most often the claimants/nominees are unaware of the policy purchase or information. There was no option to create a comprehensive, digital and user-friendly version to deliver policy information to the customers.

The company therefore created what it called a Hyper-personalized Video with several customizable elements. For example, depending on the gender and age of the customer, the video can show customized characters like 3 men, 3 women and 2 children, locations like Mumbai, Delhi, Hyderabad, Ahmedabad, Bengaluru, Chennai, Pune and one default and provide an overview of the plan features based on the chosen plan. For riders in the policy, the video, based on the riders added, illustrates the benefits the riders offer to the base policy. The video can also depict health benefits to a customer in case he is a smoker and he quits smoking.

The company claims the introduction of the video enhanced customer experience driven by appealing music and 1162 personalized avatars/variants. There has been a 60% reduction in contact center queries regarding policy details and features and the whole video is easier to comprehend and understand than having to read 27 pages of the policy document. Being totally digital, a customer can share it, send it through WhatsApp, email etc. And it has a server-less architecture and is available 24x7x365. It is also scalable to serve mass-market requirements, is a plug-and-play module, using API and allowing addition of details of new products and customization of features in less than a week. The journey analytics embedded within the architecture, providing real time analytics of customer behaviour.

Safe Pay

Airtel Payments Bank is the first bank in the country to add a third level of security to ensure safe payments. This is a critical factor given the remarkable adoption of digital payments, online shopping in virtually all the sectors, online payment of bills and growth in the number of digital payments at merchant establishments. The bank developed Airtel Safe Pay to offer protection to customers using digital payments channels from frauds such as phishing and vishing, theft of credential and phone and app cloning. In developing the tool, the bank had the following considerations in mind: making digital payments totally secure, making the customers in control and money gets debited only after the customer gives his/ her approval and making use of real-time mobile network-based authentication before each transaction.

Airtel Safe Pay has the following features:

- ◆ A customer can enable 'Airtel Safe Pay' on his or her Airtel payment account on the Thanks App.
- ◆ The customer can initiate net banking or UPI transaction using Airtel Payments Bank account on any merchant or mobile app, after entering necessary details.
- ◆ Airtel's network intelligence uses a unique real-time third factor authentication to send alerts to a customer's device using his or her SIM number.
- ◆ Only upon real-time confirmation will the transacted amount be debited to the customer's bank.

The bank claims this is first of its kind application in India and hence a unique selling proposition for the bank. It ensures compliance, instills confidence in the customer, provides unparalleled security with the customer in control. Besides, there are facilities like ease of access, no extra service charge and protection against reputational damage due to any breach.

Digital Lending Partnerships

ARCA Fincap launched a digital lending program as part of its strategy to expand its footprint in the field of innovative and digital lending. The program includes features such as online loan applications, video KYC, algorithm-based credit assessment, eNACH-based collections and digital signatures for disbursement of loans to salaried individuals. The company partnered with a fintech with the intention of catering to a unique segment for first-time home buyers for margin funding.

Salient features of the program:

- ◆ STP flow with capability to on-board borrowers / co-borrowers
- ◆ An easily configurable solution with readily available APIs
- ◆ Fintech integration standard API set
- ◆ Custom tags are available through APIs to add missing information
- ◆ Integration of credit bureau inputs
- ◆ Online evaluation of financial data is used for credit checks
- ◆ A robust and configurable rule engine
- ◆ Digital underwriting of customers
- ◆ Instant decision and approval
- ◆ Video KYC with scheduling capabilities
- ◆ Ability to register an e-Mandate
- ◆ PG integration for collecting overdue EMIs, late fees and charges
- ◆ E-signing capability

The system provides for an applicant to apply online for a home loan, share documents and get the approval of the loan in less than 3 minutes. There is absolutely no manual intervention in the entire process with the robust technology backbone comprising OCR, AI, ML and dynamic rule engines. There is no need for any physical meetings between the company officials and the customers. The company could achieve disbursement of several loans in the range of Rs 100,000 to Rs 1 million in a short period of time. The solution provides for integration of DSAs. There is also 90% probability that a loan will be sanctioned.

The solution provides for integration of fintech partners with pluggable components. As the entire flow is digitized and the data stream is stored in private cloud, the company is gaining valuable insights that it intends to use for improving its future credit models. The solution uses low-code technology, which has enabled the company to break down silos between IT and business and achieve continuous collaboration.



Cash Management Solution

AU Small Finance Bank has launched Corporate Net Banking solution, a fully integrated payments and collection system for the benefit of corporate customers. It is a powerful online, market-proven expedient payment module, which can carry out payment requests faster and more efficiently with round-the-clock availability.

Using the module, corporates can initiate payments either individually or in a batch file (in bulk). An initiation screen is provided to facilitate the process of initiating a transaction. Similarly, using multiple payments in single file, corporate customers can provide a single file for multiple payment methods (electronic and physical payments), thus reducing the effort and streamlining operation. Another solution is through template creation where it is possible to create templates that can be reused over and over again, thus saving time in creating recurring transactions. Also, there is provision to give standing instructions for recurring payments and can be executed on a regular basis with a pre-defined frequency.

The collection solution comprises virtual accounts based on number pattern as per the corporate's requirements and allocation of virtual accounts to corporate clients. The virtual accounts are linked/mapped to the corporate's single collection account. The collection is through a virtual account and crediting the main collection account maintained by CBS. The system can also generate MIS for banks and corporates. The cash collection feature of the system has consolidation feature and complete MIS will be available on the corporate's internet banking portal. Likewise, the cheque collection feature is combined with guaranteed/cleared funds, a consolidated single-entry module with day arrangement is part of the system and complete MIS is available on the corporate internet banking portal

Enhanced Education Financing Solutions

Avanse Financial Services upgraded its education financing solutions to meet the evolving formats of education delivery modules that had been implemented in the wake of the pandemic. As the pandemic struck, educational institutions across the world had to curtail campus activities and evolve a new ecosystem where advanced methods of learning are adopted. The 2 modes of delivering instruction are hybrid (a mix of on-campus and online sessions) and in-person classes. Avanse Financial Services developed its new product allowing smooth transition between learning modules. It added a student-friendly feature to the products geared towards the US market, while products for Canada, New Zealand, the UK, Australia, Germany, Ireland and for the domestic markets have been revised. Today, it is able to sanction loans within 72 hours of application, whereas its product proposition covers the entire cost of education.

The company uses a student-centric approach in evaluating a student's profile for educational loans. It analyzes the student's credentials rather than relying only on the co-borrowers' financial history. The Employability Score is calculated by using more than 45-50 criteria to determine loan eligibility. Also, the education financing solutions cover 12,000+ institutes and courses in 50 countries.

As a result of this tweak, students can gain access to all modules of education from the comfort of their homes without wasting time; as they could not afford to give up academic aspirations, the company supported them to achieve a brighter future regardless of the situation.

Prayagraj Smart City App

Axis Bank's Prayagraj Smart City App offers information on facilities and services available within Prayagraj city and this has proved to be a boon for citizens and tourists. The platform is designed in a way that the government can update the information from a web portal provided to the concerned departments and the updates to the content will be reflected in real time on the app. The app could provide during the pandemic vital information as well as geo-tagged locations of prominent centres such as blood banks to the public. The app also provides information on upcoming events, government projects and smart city initiatives.

The app has various sections. The section 'Location and Near Me' contains information on all frequently visited spots and real-time navigation to the target destination, access to mapped and verified information on places of interest within the city, integration with MapmyIndia to display covid cases and hotspots near the current position. The section 'Online Services' enables one to access various utility bills and property tax, request details of bills payable, requisition services like clearing sewage, solving sanitation issues, make donations to government relief funds, obtain birth and death certificates, etc.

Using the app, one can also submit complaints about various grievances from anywhere and the agency concerned can also give feedback through the app when the issue is resolved.

Axis Bank claims the app is highly secure, built from third party security standards; it is an ideal forum that highlights all the initiatives implemented. It has helped the civic authorities in collection of taxes as the system has been made more efficient. It also provides the user with direct communication with the municipal corporation authorities and paves the way for quicker resolution of grievances.

Digi Enroll

Bajaj Allianz General Insurance Co's Digi-Enroll is a 100% digital and fully automated healthcare platform for enrolling group mediclaim plans and endorsements, adding removing GMC plans in large data sets with cutting-edge AI and Machine Learning (ML) integrated, It is essentially a data intelligence platform.

Bajaj Allianz General Insurance Co has more than 40,000 insurance partners and 12,000+ corporates for daily operational services, such as member enrolments (over 25,00,000 annually), policy issuance (12,000 annually), member endorsements (72,000 annually), premium payments, refunds, etc. Managing all these operations manually is a tedious and challenging task. In order to effectively address these challenges, the company introduced an industry first 'Digi-Enroll', an end-to-end automated platform for enrolling group members. The hyper-automated system offers all end-to-end digital functionalities from policy issuance, endorsement, premium payments, underwriting approvals, deficiency management, and intuitive analytical reports and MIS.

The platform has capabilities for digital enrolment, electronic data interchange with 108 validations, customize the configuration as per requirement and is built using the latest technology with diverse data driven analytical tools, AI, ML and 100% self-service functionality.

The design and architecture of the system were the most challenging aspects of the project. The portal is generic, configurable and future ready. The data driven platform takes advantage of the power of data analytics, AI and ML to provide issuance and endorsement of group mediclaim policies, which entails processing of big data with large number of entries in one go and some 2.5 million similar transactions. In addition, there is a hyper-automated 100% digital platform for managing big data.

Smart Assist

Covid and the resultant lockdown compelled businesses to rethink how they interacted with the customers. While the customer and the sales force were forced to live and work in quarantine, there was a need for an interactive contactless virtual customer engagement tool. Bajaj Allianz Life Insurance Co has introduced an innovative, cutting-edge technology platform, 'Smart Assist', which gives customers a virtual way to engage with their business experts, ensuring social distancing. A screen-to-screen conversation on a highly secure interface enables frontline sales teams to connect with their customers virtually, helping them to understand products and providing them with online purchase assistance.

Smart Assist could create a transparent on-boarding process through real-time screen sharing between customer, sales representative and expert. It facilitated real-time sharing of product brochures and benefit illustrator for query resolution. It functions as a device agnostic platform with voice calling and chat enabled. It also functioned as a secured platform for form filling, payments and storing chat logs for compliance.

Smart Assist allowed customers to connect with a sales representative to understand and purchase insurance policies, provided customers with relevant information leading to superior customer experience and simplified backend operations. There is a more transparent form filling journey, where the customer can see the details actually being filled by the sales representative and any corrections can now be made in real-time. 'First Time Right' has also led to a reduction in instances of mis-selling of life insurance products.

Digitalization of Welcome Calling of New Customers

Bajaj Finance - Auto Finance is a captive auto finance company of the Bajaj Group, providing auto loans for customers buying Bajaj Auto-manufactured 2-wheelers, 3-wheelers and Qute.

The company had a system whereby a customer, who had signed up for a loan, would receive a telephone call from the company's call center for confirming various loan details like the applicant's name, guarantor's name, EMI amount, interest rate etc. The aim of this call was to obtain a confirmation from the customer as soon as the loan was booked, so that if there is any disagreement later and the EMI was not paid, this confirmation could be used as evidence. The company digitalized the process of manual calling, replacing the earlier system with a 'Digital Calling'. In fact, there are no calls made by the call center. Instead, the system will send notifications to the mobile app or send SMSs/IVRS to the mobile number of the customer and confirm the loan details. The facility is available in 11 different languages, the first time such a facility is being provided in the country.

The company derived the following benefits because of the introduction of the new facility:

- ◆ Cost savings up to ₹20 million/annum and the removal of 60 call center agents in just 1 month
- ◆ Brought in transparency by using digital confirmation and in digitizing the manual loan process, listening to concerns, collecting feedback and referring customers
- ◆ It reached all customers, resulting in a higher penetration rate
- ◆ Helped in building a very transparent process which reduced conflicts
- ◆ Highly elastic during peak demand like festive seasons
- ◆ Zero interference in the personal lives of the customers as only scheduled notifications are sent
- ◆ Intelligent process as calling is driven by the system based on the customer type, category, profile level, etc
- ◆ Brought in a change customer perspective by using technology for process improvement

Computer Age Management Services



CAMSPay

CAMSPay from Computer Age Management Services is a bouquet of payment solutions to the BFSI sector. These solutions enable mutual funds and insurance companies to provide simple and innovative solutions to investors, policy holders and borrowers for the collection of one-time and recurring payments.

One of the features in the solutions is Customer Account Validation, which is one of the key validations for customer on-boarding. The tool checks bank account details of clients of mutual funds, NBFCs and insurance companies associated with their respective folio, loan application, and policy to prevent business losses. It leverages NPCI's IMPS and UPI platform to effectively verify customers. Using the solution, mutual fund companies can update their existing investors' bank account information, avoiding financial mismanagement, third party investment verification and preventing money laundering activities. Similarly, it simplifies the lending and insurance claims process by validating the bank account details instantly via agile APIs. Customer account details are verified by both IMPS Penny Drop check and UPI VPA. A customer can do validation using IMPS by crediting 1 rupee to customer bank account and in return receive information to validate the customer details. Similarly, with the help of UPI's seamless solution, it verifies the customer bank accounts without crediting 1 rupee and in return receive accurate details which supports their customers to provide seamless services to their clients. The solution uses Account Number + PAN or UPI VPA to validate the customer details.

So far, the solution has validated 20 million customer details, prevented more than ₹1 billion wrong funding, can do under 1 minute for on-boarding, carry out instant redemptions, loan disbursements and policy claims, offer a seamless customer experience and generate additional business through value-added services.

Integration of government schemes/ demat/ trading/ insurance products in internet and mobile banking

Canara Bank has undertaken a project aimed at providing its customers the convenience of online facility for end-to end opening and servicing of ancillary services provided by the bank such as life and health insurance, travel insurance, motor insurance, long-term home insurance, instant opening of demat account and instant application facility for trading account. have also been facilitated. The project also ensured complete integration of government social security schemes such as Sukanya Samridhi Account, Public Provident Fund, Kisan Vikas Patra, Senior Citizen's Savings Scheme etc with the mobile banking and internet banking channels of the bank such that the customer does not need to visit the branch.

Customers are provided with options to avail multiple products related to insurance, government business, demat and trading account via the bank's mobile banking app.

This has helped the bank in achieving benefits such as instant fulfilment of customer needs by end-to end opening of products without visiting the branches. It has also helped the bank to go paperless and be environment-friendly. Besides, there has been savings on operational costs of running bank branches.

The project helped the bank to create enhanced customer loyalty and build a better brand image among the new and existing customers. It also provided ease of access to all the banks' associate party products 24x7.

Digital Initiatives in Financial Inclusion

Central Bank of India has digitized several of its key functions in the financial inclusion domain thereby achieving efficiency, cost savings and customer satisfaction. Digitization has facilitated (i) better business functionality, (ii) ease of Use, (iii) durability/reliability, (iv) integration, (v) cost reduction, (vi) simplification, (vii) aggregation, (viii) disintermediation, (ix) error reduction, (x) environment friendliness, (xi) security and (xii) reach.

The bank has deployed a financial inclusion gateway switch to integrate its CBS with FI efforts. The gateway is connected with the National Payment Corporation of India for Aadhaar Enabled Payment System (AEPS) to facilitate interoperability of FI transactions across business correspondents.

The bank is the pilot bank to implement AEPS 2.5 functionality in industry and adopted 'Revised Flow' to reduce transaction clock from 42 seconds to less than 25 seconds, which resulted in bringing down transaction decline drastically. During PMJDY (Women) disbursal through BC points, the bank could achieve financial transactions worth ₹1.9 million on a single day.

The FI Gateway Switch has a centralized web server solution in order to have uniformity among all TSPs and to ensure security that any customer information is not stored in TSP database. The bank has enrolled 11.5 million FI customers through the BC model.

Another area where the bank has deployed digital tools is in integrating Bharat Bill Payment System with the BC system enabling financial inclusion customers to pay their bills using biometric authentication at the BC points.

With increased number of BCs available in the field and successful integration of most banking functionalities at BC points, the need for a customer to visit a bank branch is minimal thereby reducing the operational costs of the bank.

The bank has developed and implemented online Aadhaar seeding and de-seeding processes at branch level through CBS to reduce redundancy of data.

At BC points, with most of the transactions becoming digitized, there is hardly any paper work, which has contributed to an environment friendly situation in branches.

The bank has engaged 4 vendors for developing and implementing its program to reach unbanked rural people enabling them to have banking and insurance facilities at their doorsteps.

ATMChain

The Reserve Bank of India's guidelines specify that all ATMs should only be operated for cash replenishment with digital one-time combination locks. DCB Bank deployed the digital locking system using blockchain technology. The bank approached the project in phases - requirement gathering, definition and development. It developed a web portal using Node.js technology that allowed LDAP-enabled login authentication and OTP generation using Perto's service. The blockchain network was developed on Hyperledger fabric to capture key events such as new ATM addition, the time that the OTP was generated, by which custodian, and the ATM against which the OTP was generated. The solution had features such as all participants (network group) had access to the ledger, eg ATM, web app, etc; all transactions (actions) are recorded and cannot be altered, all participants had to agree on the validity of each record, participants' identities are anonymous or pseudonymous, all records are individually tamper-proof and blockchain enables smart contracts to run business rules, such as OTC expiry.

The system provided the following facilities:

- ◆ Fully automated generation of one-time combinations for cash replenishment
- ◆ Reduction of TAT by 2 hours
- ◆ Reducing dependency on branch
- ◆ Compliance with regulatory & security requirements
- ◆ Wide impact across the entire organization
- ◆ Adoption of blockchain technology
- ◆ Enhanced operational efficiency
- ◆ Employee satisfaction
- ◆ Fully automated and easy to configure new products and business needs
- ◆ Availability of regulatory reports 24x7
- ◆ Deployed in more than 300 branches and 500 ATMs

STAAR

STAAR is a gold loan initiative, utilizing the integration capabilities available in the upgraded CBS of Dhanlaxmi Bank. The initiative was taken up as part of the automation and integration initiatives in the bank during the IT transformation process. It has helped to improve customer service and staff productivity.

The bank's gold loan portfolio has processes including:

- ◆ Appraisal and valuation of the ornaments to be pledged
- ◆ Preparation of the application
- ◆ Customer identification and KYC verification
- ◆ Preparation of documents and obtaining signatures from the borrower
- ◆ Opening an account with CBS
- ◆ Disbursement of the loan, which involves 5 distinct steps for each account.

The first process is operational with very limited scope for automation. This is accomplished by physically inspecting the ornaments. With the implementation of STAAR, each step from 2 to 6 is automated with a single data form and authorization. The application (step 2) is automatically generated based on the data entry. The data input process is further simplified by avoiding repeated data entry and retrieving relevant information available in other systems like customer information, rate of interest data etc. On approval, all the 5 steps of loan opening occur in a seamless STP mode, which integrates with the CBS through API.

For the bank, the biggest impact as a result of the initiative was the reduced turn-around-time for gold loan account opening at branches. The TAT is reduced by 12 minutes, which amounts to a 60% reduction in the total time.

The bank found that the entire process is straightforward and simple, through integration, duplicate data entry is avoided, ensuring data integrity, could provide better customer service due to a reduction in TAT to 12 minutes per loan, the STP mode of integration using APIs was possible, while adhering to security standards and avoidance of defective documentation. After the initiative is introduced in the bank, some 800 to 1000 gold loan accounts are opened every day, there was savings of 300 man-hours per day on average, there was a new sales edge for the business team and documentation was standardized and achieve uniformity in all dealings pertaining to gold loan across the bank.

Financial Well-being Report

Dvara KGFS has developed the Financial Well-being Report (FWR), an automated, customer-centric tool for financial planning that uses customer data and back-end algorithms to provide specific and actionable financial recommendations to enrolled rural households. It employs an automated method to determine whether a product is suitable for a particular customer's needs by using the customer's sources of income and frequency of income. It also takes into consideration recurring expenses, savings and debt of the household.

The primary goal of FWR is to create an effective wealth management solution for rural India, providing the rural customers with an integrated financial management plan customized to their necessities and desires (a suite of credit, savings, insurance, and investment instruments). Most importantly, the aim is to transform a customer's viewpoint from always being credit-oriented to one that is savings-oriented.

The approach was to develop a machine learning algorithm that can analyze customer information pertaining to a customer's personal and household information, monthly income and expenditures, credit bureau history and financial goals in life and make recommendations on financial products that should be offered to them. The approach comprises 4 distinct building blocks - Plan, Grow, Protect, and Diversify (PGPD).

Dvara KGFS worked with IIT Madras' Robert Bosch Center for Data Science and Artificial Intelligence to build an AI & ML-based tool to better understand customer segments and recommend suitable solutions within the framework. Based on customer and credit bureau data, the algorithm would suggest the right products, while wealth managers' conversations with customers would be more focused on selling those solutions to them.

Usually, fear of inconsistency in the income forced customers to enrol for packages with lower monthly investment. But, after completion of 2 months from enrolment into Dvara Scheme, it was found that customers wanted to pay higher monthly instalments. Also, a set of customers was found to make additional payments which are over and above the monthly instalment.

With inputs coming from customers, modifications in packages and operational process were made to accommodate the requirements.

Edelweiss SWITCH

Edelweiss SWITCH is a driver-based insurance scheme, the first usage-based Motor OD insurance policy that is mobile app based, making it even paper-free. Under the scheme, people pay a premium only when they use their car. Once the car is parked, one can switch off the policy and stop paying the premium. Not an old-fashioned paper policy, this is a subscription-based service model, where a user pays monthly charges after his/her initial premium payment. With one Edelweiss SWITCH policy, one can add up to 3 vehicles and have up to 3 drivers who are authorized to operate the vehicles. With a simple tap on the app, a customer can select which vehicle needs to be covered on any given day. In fact, one can choose beforehand which vehicle needs to be covered on which days.

Benefits to the customer include that it is a driver-based insurance where the premium is based on the driver's age and experience, it is the first on-demand motor insurance product that uses a pay-as-you-go model in India, there are significant cost savings and convenience and the app lets one switch between ON and OFF modes, depending on whether one is driving that day or not. Even when the policy is switched off, vehicles will be covered against fire, theft and natural disasters no matter when they are switched on.

The company has developed the product using extensive research of market trends, customer behaviour and viability analysis, it is telematics-based and the focus of the company has always been on creating simple and innovative products that provide tangible value to customers.

AI-based Digital Lending Platform

Federal Bank has deployed a digital lending platform powered by AI for auto loans. The bank has been working on a digital lending platform using AI as it felt there is a need for such a platform that is end to end digital and accessible from both mobile and tablet devices as the whole world is shifting toward automated decision-making tools and direct underwriting. Using the platform, loan applications and supporting documents can be collected, verified, transmitted and sanctioned online in few hours. The platform contains real-time verification tools that help the bank to reduce the transit time thereby making loan sanctioning a quicker and more accurate process. All verifications, such as analyzing loan applications and credit worthiness of the customer, which were previously done offline, are now performed by the platform using AI.

It is a generic platform built on a sound foundation of System Modularity, simplifying business function delivery with an easy to use front-end that hides inherent complexity of on-boarding / servicing system. There is a Business Rule Engine (BRE) using AI to make quick decisions. Use of the platform reduces data entry and processing time, provides real-time risk assessment and in-principle approval, there are automated eligibility checks and automatic disbursement of approved loans is possible.

The bank lists the following benefits while using the platform:

- ◆ Reduction of data entry and processing time
- ◆ Reduced processing time from 48 hours to 45-60 minutes including loan documentation and disbursal
- ◆ Processed ₹1.52 billion worth of loans
- ◆ Fully automated processes
- ◆ Operable on multiple devices
- ◆ Flexible process flow
- ◆ Provision for queries
- ◆ Notification of the request to all concerned persons via mail/SMS etc.
- ◆ A user-friendly interface, with a contemporary design and easy to use
- ◆ CBS integration for customer onboarding, loan account creation and disbursement
- ◆ Quick decision making
- ◆ Savings in time and resources by rejecting ineligible applications in advance
- ◆ Paperless process

mCARE

Fincare Small Finance Bank's mCARE is an internally developed tab-based solution for originating micro-loans offered for income generation purposes to women customers from low-income rural households. With the launch of mCARE, the bank has transformed from the old paradigm of banking to a new one. The technology has been integrated with UIDAI for Aadhaar-based e-KYC and with CRIF High Mark to enable instantaneous e-KYC and credit decisioning.

Some of the key features of mCARE are:

Real-time customer authentication through e-KYC. The solution has been integrated with UIDAI for Aadhaar-based biometric customer verification.

Real time integration with credit bureau. It is integrated with CRIF HIGHMARK, which aids in tracking the credit history of different types of loans.

Underwriting algorithm. The algorithm is based on various credit parameters, such as guidelines outlined by the Ministry of Finance and RBI.

Process based workflow. The workflow seamlessly aligns with the traditional microfinance workflow. The end-to-end process is designed and managed according to the Field processes.

Process adherence tools. The application helps to ensure process compliance by ensuring inbuilt validations, dynamic tracking of employees, GPS tagging, and image proofs by the different members in the value chain.

The bank highlights the major advantages of mCARE as:

- ◆ No paperwork for the bank and the customers
- ◆ Reduced processing time per application, resulting in shorter turn-around time
- ◆ Simplified process of loan origination
- ◆ Better controls with instant e-KYC
- ◆ Low operational costs
- ◆ Better planning of the workload for centre managers and branch managers
- ◆ Faster disbursement of cases and an increase in productivity and time saving

Hyperlocal Search

Fino Payments Bank, which has a huge presence in the rural markets, has been seeing customers facing difficulties in locating their lenders/ banks to pay loan EMIs in cash and also a sense of intimidation when enquiring about the location as also visits by collection agents. The bank wanted to solve these problems using simple principles: easy access to a phone and the bank's own extensive distribution network of over 300,000 touchpoints. This resulted in the development of Hyperlocal Search.

There is a specific URL for the purpose - <https://finoemi.latlong.in>, and the bank's merchants, who are keen to offer EMI collection services are mapped on to this URL. In addition, there are micro-ATMs as also targeting markets where lenders have a customer base. Customers can do an SMS search by sending SMS FINO (PIN code) to a specific mobile number and the customers will receive 10 possible Fino resources and they can pick up the convenient location and walk in and pay.

The service is extremely popular and the bank experienced an increase in search volumes and actively promoted it to their customers. Interestingly, the bank's collection agents use the same URL to locate where to deposit the cash they have collected. This increased their productivity!

The bank says in a tangible way the count of customers increased, incoming payments ensured greater availability of cash in micro-ATMs while the customers can save time and effort. The system is easy to use and does not require high levels of literacy or articulation.

The bank ensured that the average distance that a customer needs to traverse to a touch point is 800 metres while the median distance is 250 metres. It saw this as a value creation within the ecosystem.

Branch Digitization

HDFC Life Insurance Co felt it was necessary to increase the number of First Time Right transactions to improve the overall experience. The high demand for branches led to the need for improved queue management. Considering the situation, it was imperative to focus on the segment of customers that prefers servicing at their place of residence since they do not wish to travel long distance to branches. Furthermore, business need, external stimulus, legal and compliance risks, technological advancement, process improvement, customer and distributor requirements were the triggers for change.

The aim of branch digitization was:

- (i) Move 75% of the transactions from legacy system to mobility system.
- (ii) Reduce the servicing time from 30 minutes per transaction to less than 5 minutes
- (iii) Enable the same comfort level of a face-to-face interaction with a full digital servicing solution

The company conceived a 3-stream approach to evolve a total solution:

Stream 1: TAT and cost-focused

Stream 2: Lobby Experience Focused

Stream 3: Innovation and Future Ready

Stream 1 involved implementation of InstaServe, which resulted in 79% of aggregate servicing transactions being handled by InstaServ, 97% of all cumulative receipts being processed via InstaServ, reduction in TAT from 30 minutes to 5 minutes, savings on courier, postage and papers and increase in customer satisfaction index rising from 82% to 92%.

Stream 2 involved introduction of digital branch enablers like contactless tokens and digital displays.

Stream 3 involved introduction of VServ, which in the first phase saw virtual servicing (during the lock down phase), some 2000+ new customers signing up in the past year, with business worth over Rs 550 million, supporting some 300 customers with service and 500+ renewal premiums being collected. Besides, branches could be managed remotely with sales assistance and could achieve VOC rate of 83%. VServ is providing customer service and sales support to 30 branches with digital service model. In addition, it enabled 200 users to participate in virtual surrenders, 50+ customer surrender queries closed with 10 or more aversions and received 200+ life certificates through the system.

Exchange Traded Fund

ICICI Prudential Asset Management Co took up the opportunities in thematic exchange-traded funds (ETFs) and innovated products for domestic investors, helping them get started with ETFs. The company was one of the early movers in ETF schemes. With continuous innovation, the company has created products that are in line with domestic market dynamics and aimed at creating wealth for its investors for a long time.

There are 5 new ETF NFOs introduced by the company:

- ◆ ICICI Prudential Alpha Low Vol 30 ETF, a multifactor smart beta ETF, still an undiscovered gem in India.
- ◆ ICICI Prudential IT ETF that invests in the \$200 billion Indian IT industry.
- ◆ ICICI Prudential Midcap 150 ETF that represents the next 150 companies by market cap, which are attractive entry points into midcaps.
- ◆ ICICI Prudential Bank ETF, which invests in the Indian banking sector which is expected to grow by \$2.5 trillion.
- ◆ ICICI Prudential Private Banks ETF, which is backed by confidence in the growth potential of private investors in the Indian banking industry.

The company has been working to promote awareness and penetration of ETFs in India since the last few years. The success of these launches is evident from the rise in investors, AUM sizes and media advocacy of these launches.

With healthcare sector gaining importance and investors showing interest in this sector, the company has recently filed documents for a new ETF - ICICI Prudential Healthcare ETF - with the regulator, which investors can use for diversifying their portfolios. Another product in the pipeline is ICICI Prudential Alpha Low Volatility Fund (FOF).

Email Bot

An email bot is an automated tool designed to help a person respond faster to an incoming email. Through Artificial Intelligence (AI) and contextual analysis, an email bot delivers tailored email responses, allowing one to respond with the right tone of voice automatically. Incoming emails are handled automatically by this tool. Using the information contained in the emails, the bot analyzes the message and executes action based on the content in the messages. IIFL Securities has integrated business processes with its CRM and multiple applications to gain an accurate insight of the customer's needs. Consequently, it is able to respond to queries from clients within a time frame and with accuracy.

The company has integrated around 22 internal processes, which has led to improved internal effectiveness. The bot is trained to read and comprehend customer emails using artificial intelligence. Based on this, ready-to-use responses can be created for each agent, who just verifies the response and sends it accordingly, reducing the time it takes to process. The outcome is increased productivity and ensuring that errors are reduced. It also saves time by reducing workload so that one can focus on other tasks.

Smart Pay Plan

IndiaFirst Life Insurance Co's Smart Pay Plan is a non-linked, participating, limited pay, money-back life insurance plan, which accounts for over 30% of the life insurance company's retail business. Launched in July 2019, this plan outperformed the previously predominant top propositions within 6 months and it has since been the most on-trend product due to its unique features and benefits.

Smart Pay Plan can be purchased through the company's end-to-end digital process using SIMPLIFY Tab and web portal operated by the sales team. The plan is a perfect mix of disciplined savings and liquidity combined with life cover. It provides a survival benefit (chosen at inception) as well as a maturity benefit if the insured survives the term of the policy. In the event of death of the life assured, a lump-sum payment is usually made to the nominated family members. Besides, tax benefits may be available on the premiums paid and the policy proceeds earned.

Smart Pay Plan, according to the company, is a 4-pay option plan, which is first in the industry, enabling liquidity within the premium-paying period. It offers shorter commitments to pay, there is waiver of premium rider, which ensures continuity of the policy benefits even in the event of unfortunate events. The protection of loved ones is through a life insurance policy that pays 10x the premiums in the event of an unfortunate event.

Smart Pay Plan has received over ₹3.35 billion in business through nearly 47,000 policies with an average ticket size of ₹70,000. The company had enjoyed new opportunities because of the uniqueness of the plan, which demonstrated its market acceptability and built trust of the customers.



Project 111

Indostar Capital Finance launched a customer service initiative to build a digital customer support center, called the Customer Connect Center. The main objective of the initiative, called Project 111, was to design artificial intelligence based conversational and digital customer service centers with minimal agent support.

Among the functionalities developed for the project were an AI based conversational IVR, automated outward calls initiated by the bot, and a chatbot workflow to handle call center automation and enable First Call Resolution through a virtual agent working omni-channel - WhatsApp, emails, etc. In addition, the project involved the development of a CRM system which will manage all customer's service requests through multiple channels, with internal organizational hierarchy, departments and roles and lifecycle management.

Project 111 involved development of:

- ◆ An AI-based conversational IVR
- ◆ Single 'Source of Truth' through CRM System
- ◆ Bot initiated outbound calls
- ◆ Chatbot workflow to handle call center automation
- ◆ First Call Resolution (FCR) through virtual agents
- ◆ Omni-channel interaction IVR, emails, etc.

Following introduction of the system the company could achieve a cost saving of ₹10 million annually on account of infrastructure and manpower, 18-22% increase in collections of overdue EMIs, uninterrupted customer support, increased customer satisfaction, centralised tracking of all QRCs, improved customer service and call quality, creation of a web-linked CRM system that will deal with self-service - SOA, EMIs, loans, credit o/s and etc, undertake sentiment analysis, have employees on-call for escalation and consolidation of communications channels. Besides everything else, it could create bot powered by AI.

IndusOntheGo-Mobile LOS

IndusInd Bank launched its IndusOnTheGo – Mobile Loan Origination application for its vehicle loan business, primarily for small and medium vehicles and passenger vehicles. IndusOnTheGo has an integrated AI capability for cross-selling by suggesting insurance products relevant to the prospect's interests.

It is an assisted journey model, wherein the regional managers/ executives fill out the application based on input from the customer and submit it for approval to the relevant authority. It has the ability to assign various stages to diverse stakeholders, making the process of working easier.

The main benefit of the solution is that digital processes have allowed teams to track proposals from lead to disbursement. It allows for better prediction of business outcomes and analysis of the quality of various procurement channels. The solution has aggregated all data sources within CFD and has provided comprehensive dashboards for approvals, reducing approval times. AI-assisted tools process the selection of loan products, the amount of loan, the tenure of loan and the revenue generated from the product.

As a result of introduction of the solution, the bank claims there has been nearly 50% reduction in file work and associated courier costs due to system-based printing of the files. The digital processes have also enabled teams to track proposals from start to finish, helping improve business prediction and analyze the quality of alternative sourcing channels. Because it could achieve 40% mobility, there is higher productivity and bank now intends to replace the desktops of executives with the app, reducing hardware and infrastructure costs. It is also possible to capture credit deviations automatically, and mapping of authorities and customization are possible at the state and branch level. The technology offers 99.99% uptime, it is secure, and compliant.

Using the solution, the bank is now able to cross-sell products, consolidate data from all sources, give approvals on the go, increase productivity and keep track of rejections.

KVB DLite Mobile Banking Solution

Karur Vysya Bank's KVB DLite is a comprehensive mobile banking application that on-boards a customer and provides all necessary retail banking services. It also offers an electronic solution for opening online SB accounts. Any individual above 18 years of age who is a resident of India, can open this account using his or her Aadhaar number and PAN.

The bank wanted to provide a smooth, easy-to-navigate digital journey for its customers. Using DLite, they can open a savings account sitting at their home or office and complete the KYC procedure. The mobile banking app allows all kinds of payments, booking flight tickets, hotel rooms, do recharges, bill payments, etc.

The bank's customers can also avail gold loans using the app by providing collateral by way of pledging jewelry at the branches. Loan repayments can also be done through the app.

The bank sees major benefits using the app:

- ◆ It is integrated with all default payment options such as NEFT, RTGS, UPI and IMPS
- ◆ Customers can apply for an online gold loan
- ◆ Reduction of customer traffic in the branch resulting in decrease in the cost of operations
- ◆ Increase customer convenience by reducing the amount of time and effort spent on branch banking transactions such as obtaining a PAN, Aadhaar, mobile number, email updates, etc.
- ◆ Customers can also open a RD, FD, TD instantly through DLite mobile banking app, saving the bank time, money, and effort
- ◆ Ensures paperless banking

E-Rate Reduction

While the Reserve Bank of India has been announcing several interest rate reductions in order to infuse liquidity into the economy and promote lending activities, customers of banks have often found it difficult to move to different benchmark rates or get lower rates of interest. This has been because of the long TAT (around 30 days on an average with multiple process steps, complex documentation, delays in communication, requirement of the customer to visit branches to submit documents and receive sanction letters and manual processes like entering data into Excel sheets. Besides, often it is processed at branches and officials there do not treat the cases with the required urgency. Also, there is no tracking mechanism for contacting customers who have not returned the sanction letter.

To eliminate this hurdle Kotak Mahindra Bank has developed e-Rate Reduction module that is available to the concerned team with automatically populated details to capture the negotiated rate and provide prompt approvals within the workflow. There are multiple formats of sanction letters generated within the system, to be used based on the benchmark Index Rate at which the customer is currently registered and the Index Rate to which they are moving. Upon approval of the case, the system automatically generates an acknowledgement/consent letter containing the relevant information, which is sent to the customer's registered email ID. Once the customer gives consent, the rate change is automatically captured by the operations department. And once the rate changes are authorized by the Operations Officer, the rescheduling statement is automatically sent to the customer's email address.

The system brought in the following benefits:

- ◆ Reduction in courier costs as sanction letters are sent through registered email addresses for the customers to approve
- ◆ Close monitoring because of the centralization of the process
- ◆ Tracking and follow up mechanisms made available for reducing customer churn
- ◆ Specialized Retention Team which is skilled at retaining customers
- ◆ Reduction of TAT from 30 days to 3 days
- ◆ No Documentation
- ◆ Quick response from the bank on the decision to reduce rates of interest
- ◆ More time for day-to-day servicing at branches with improved productivity
- ◆ Better customer experience
- ◆ Customer decision-making is quick
- ◆ Less effort for the customer

Reactivation Process Revamp for Better Customer experience

Market regulator SEBI had stipulated that clients who are not trading continuously for a year have to be marked as dormant. So, the primary challenge a broking house faced was that its team was unable to facilitate the preferred trading timeframe for those clients. The delay in reactivation of trading accounts created customer dissatisfaction and caused monetary losses and client loss. This further leads to escalation and disengagement of clients, resulting in direct revenue loss. The primary metric, therefore, was the reduction in reactivation time and a secondary metric was the reduction in revenue loss.

Motilal Oswal Financial Services introduced a new reactivation process that quickly gained traction with a substantial number of business associates. Now, the customers can reactivate their accounts within minutes, and can trade with ease.

The solution consists of a digital request module, where digital forms reduce the duplication of data punching and reduce transit time, a secure authentication through API, which means reduction in chances of fraud as forms are digitally signed using the Aadhaar E-Sign API and OTP authentication, an online verification system where forms are provided to HO verifiers in real time and digital format, which eliminated the dependency on document management cell and shortened the objection resolution process, API for exchange UCC process, which eliminated manual batch processing and batch wait times, a trading server data update API, which can update client status, eliminating a delay of 60 minutes and reports and alerts using real-time dashboards for different teams and heads to be able to get the overall view for corrective actions.

The company says this has led to TAT reduction from 5937 minutes to 32 minutes, reduction in escalation of complaints from customers by 80% and strict adherence to SEBI guidelines for digital solutions.

Verify App

Punjab National Bank has recently implemented an authentication mechanism for the internet banking customers of the bank called 'PNB Verify'. It is an app available on both Android and iOS platforms. The unique feature about the app is that it uses an in-band channel for authentication based on application-to-application communication to protect data and the enterprise from unauthorized access. The app offers an alternative to the security issues associated with conventional two-step authentication methods, namely tokens and SMS OTPs. One of its biggest advantages is that it does not depend on third party services such as Value First or Enstage for authentication in the middle of the transaction.

PNB Verify has proved to be a secure means for conducting financial transactions using internet banking. As notifications are sent to the registered device and the transaction has to be approved by the user before execution, possibility of frauds is minimized. The transactions initiated through internet banking and e-Commerce transactions that do not use the physical card can be authenticated using the 'in-app' notifications of PNB Verify instead of using SMS as the second factor. This facility will help customers avoid the inconvenience caused by OTP delivery delay or non-delivery. The solution, attached to the customer's device, makes second factor authentication reliable.

Some key features of the app are:

- ◆ Replaces SMS OTP authorization with pull based out of band notification
- ◆ Notifications are only received and visible upon successful multifactor authentication
- ◆ Eliminates SIM frauds by using fingerprinting technology on the customers' devices
- ◆ Displays transaction details by encrypting them using a secure channel
- ◆ Provides one-tap authorization for transactions
- ◆ Detailed notification history ensures that details are available for review
- ◆ Protection of internet transactions and data by means of tamper-proof secure channel over public internet/wireless
- ◆ Consistent, fast, simple and secure internet banking and debit card e-Commerce transactions

Cyber Security Defence-in-depth

Reliance Nippon Life Insurance Co's Cybersecurity Defence-in-Depth strategy is a series of mechanisms layered to proactively detect and prevent cyber threats and maintain resilience for digital assets such as corporate and customer data. There was a huge need for the organization to strengthen its cyber security resilience in the wake of the emerging cyber threat landscape. Layering up of controls through SIEM systems with global threat intelligence paired with a proactive endpoint detection and response mechanism was a game changer.

A new approach to cybersecurity combines layered incident analytics with behaviour anomaly detection and prediction for faster detection of behavioural patterns, file-less malware and suspicious persistent security threats. Machine learning methods are used to gather advance information on globally trending cyberattacks. The threat intelligence is sourced from trusted forums and security research groups.

The solution provides 360-degree protection from cyberattacks by integrating SIEM, Endpoint Detection Response and SOC. Advanced intelligence feeds and co-relation analytics help for a quicker reaction. SIEM's core platform consists of an Event Analyzer and other components like sensors, event loggers and log collectors. Anomaly detection and automated response to threats are provided by the End Point Detection and Response System.

Benefits for Internal Users

- ◆ The layered defence approach covers over 70,000 field agents and over 1000 internal users in India. The solution secures nearly 300 business critical IT assets, more than 700 branch location users and remote users
- ◆ Layered security mechanisms reduce the cost of a full-blown breach
System downtime and ensuing losses are reduced through early incident prevention
- ◆ The solution also minimized risks of system non-compliances, reputational losses and regulatory penalties

Benefits for External Users

- ◆ Layered security provides early alert on cybersecurity incidents, which is shared with CERT-IN, IRDAI, and the National Critical Infrastructure Protection Centre
- ◆ This alert helps in informing other concerned entities to take proactive counter measures
- ◆ It identifies and prevents the possible use of corporate resources for launching attacks on other networks
- ◆ It establishes customer trust based upon good security and governance practices
- ◆ Customers' data security and resilience are assured

Health Insurance on WhatsApp

Through its product Health Insurance on WhatsApp, SBI General Insurance Co proposes to accomplish its goal of insurance for all Indians, financial inclusion for all and increased insurance penetration by providing greater reach and accessibility. The company feels that while covid had increased the awareness about health insurance in the country, the penetration of health insurance services is still abysmally low and one of the main reasons for this is the complicated buying process and lack of product knowledge. The company wanted to address these problems through its Arogya Sanjeevani health insurance policy, which is available through WhatsApp. Any customer using WhatsApp is able to buy health insurance digitally after a few chats online. In the first phase, customers will be able to buy a standard comprehensive health policy.

Arogya Sanjeevani marks a significant change in the way consumers approach insurance purchase. The company believes that enabling health insurance on WhatsApp increases the penetration of insurance. And the product is introduced at a perfect time when the Government of India's National Health Protection Mission [SS2] is dedicated to addressing the national health coverage gap for the middle and the lowest income groups.

SIB FeeBook

SIB FeeBook is an online event-based fund management portal of South Indian Bank that can be customized by customers based on their specific needs in minutes. The bank believes in enabling and empowering its customers across a range of demographics and take control of their financial lives, be it individuals looking to invest their hard-earned money or corporates looking to utilize a seamless and secure payment system. The bank wanted to design a product that would simplify and declutter fund acquisition and payment systems.

In SIB FeeBook, customers can customize every detail, right from the date and time when payment is permitted, what kind of information to be captured, the fee and fine amount to be charged, the validations for payments to the appearance of the logo and the ticker messages to be displayed. The portal can either be displayed on the bank's official website or on the customer institution's site, where users can select the organization's name to complete their payment.

The portal is powered by the bank's own Payment Gateway. A single agreement takes care of the whole package and the customer is then free to customize.

Some of the benefits that the portal brings to the customers are:

- ◆ Complete customization
- ◆ Increased use of the platform can lead to increased transaction revenue. In 2020, almost 150,000 transactions were initiated by SIB FeeBook
- ◆ Institutions no longer require multiple resources for fee collection operations
- ◆ The portal contributes to a productivity gain.
- ◆ The plug and play aspect reduces effort spent on setting up a new platform and replaces multiple hardware end points with a single system
- ◆ Dramatic reduction in software cost. All payment requirements possible through a single system
- ◆ Provides a convenient and secure payment platform that is easy and seamless use on mobile devices
- ◆ Enhances brand value and overall user perception
- ◆ Facilitates integration with merchants

Tata AIG General Insurance Co

NETRA Mobile Inspection App

Underwriting commercial property risks generally requires risk inspections by insurance company engineers. All risk inspections have traditionally been performed physically on site, incurring travel expenses for the company. Tata AIG General Insurance Co has developed a web platform and a mobile app to allow risk engineering staff to conduct risk inspections remotely. This reduces business turnaround time and substantial cost savings. Risk assessment and reporting are built into the web platform, which means it is more agile than the conventional method.

With NETRA, the company claims it has transformed risk inspections into a tech-based, data-driven process that adds instant value to the insurance industry. An innovative risk assessment process is offered through this app with experienced and senior risk engineers assigned with inspections.

Highlights of the app:

- ◆ Provides real-time data like photos, videos, audio, texts, coordinates, chat, etc.
- ◆ Streams high resolution video and photographs on a secure basis
- ◆ Enables users to complete risk inspections even in locations without mobile network strength
- ◆ Rapid generation of risk assessments enables faster decision making and efficiency.

The company developed NETRA in-house with capability to carry out risk assessment in scenarios where there is no mobile data connectivity as well as where such connectivity is available. The app lists possible ways to improve risk management, which helps the customers. Swift risk inspections, prompt quotes from underwriters and quicker submission of client reports give the company an edge in this competitive market. For risk underwriters, the app provides faster decision-making prowess through quick risk assessments, quality risk selection and loss minimization. Quicker risk inspections and client reports also help the sales team in their efforts.

Sampoorna Family Banking

While Ujjivan Small Finance Bank functioned in its earlier avatar as a MFI, becoming a bank meant it needed to provide basic banking requirements of their MFIs clients as well. It has therefore initiated a program called 'Sampoorna Family Banking', offering comprehensive financial services to these customers and their family members, aiming at creating good banking habits among them.

Among the various features of these initiative is the promotion of simplified savings products and launch of goal-based deposits. Saving products have been developed that are easy to manage for account holders and for their family members. Additional account options include adult accounts, minor accounts, and goal-based deposit options. Second is the graduation of group loan customers to higher ticket size unsecured individual loans. As the majority of group loan customers are seeking large loans from formal institutions, the bank is among the few which offer these high-ticket size personal loans to customers. The third is multiple products offering such as micro-insurance, two-wheeler loans, hospi-cash, etc to microfinance customers. This contributes to the mission of 'Building Banking Habits'.

The bank has also introduced QR code based payments solutions, which allow customers to accept payments for a range of economic activities directly into their Ujjivan account. Currently, the Bank has around 30,000 small business customers using this facility. It has been offering flexible cashless repayment facility to its loan customers like SI/ACH, Paytm, Instamojo, Airtel Payment Bank. There is 'Money Mitra', which is a proximity banking service in which customers reach out to their local Money Mitra agents for loan repayments, money transfers, deposits etc.

The bank has also introduced pre-approved loans and loans on phone to eligible microfinance customers within 30 minutes.

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