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#### Indian Banking Sector Embracing Technology for Growth

eeping in mind the goal of Financial Inclusion, the Indian banking sector is gradually building capacity through technology under the ambitious 'Digital India' initiative. The foundation of this capacity building, however, can be strengthened by enhancing the technology scaling and getting more and more people into digital transactions.

Our cover story, 'Tech-driven Indian Banking Industry -- Aiming For Zenith', analyses the Indian banking sector's ongoing technology-based journey. The story not only revisits the past, but also delves into the future by trying to capture the perspective on future of leading minds in the industry.

The latest issue of The Banking and Finance Post also carries a case study on India Post, 'Serving the Common Man', which analysis this deep-rooted institution's transformation and emergence as a banking option for the common man.

In May, Elets organised the Digital Banking & Payments Conclave in Mumbai. The conclave served as a unique platform to explore and discuss various practices and initiatives introduced by the Banking, Financial Services and Insurance (BFSI) segment for promoting the usage of digital payments in India. It focussed on the country's endeavour to transform itself into a cashless economy.

The conclave was a gathering of esteemed experts from institutions like National Payments Corporation of India, Unique Identification Authority of India (UIDAI), National Bank for Agriculture and Rural Development (NABARD), Ministry of Finance, public and private sector banks, payments banks, etc. The magazine carries a report highlighting the insights from the brightest minds in the industry to trace the future trajectory of the BFSI sector in the country.

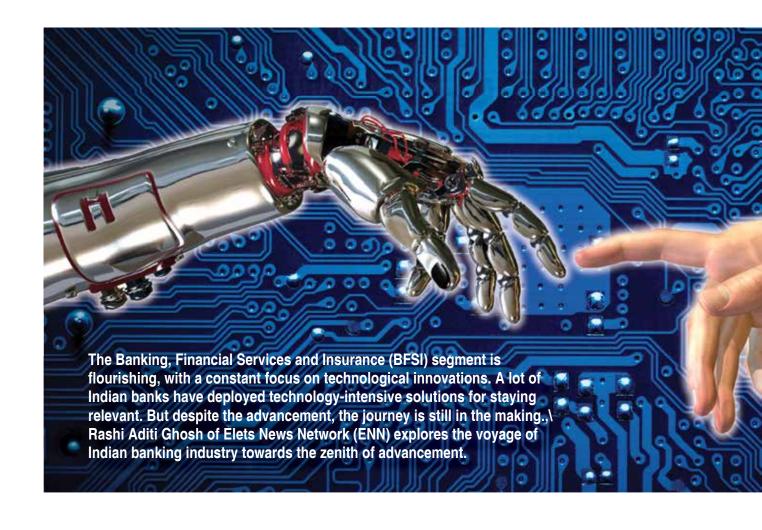
In the month of October, Elets plans to organise FinServ Tech Summit in Mumbai to provide an exclusive platform for NBFCs, insurance companies and cooperatives to discuss and deliberate on how digitalisation is serving as the game-changer and which best practices would help them to accomplish their targets by improving efficiency.

Looking forward to our readers' invaluable feedback.

<del>यविशुःत</del>

**Dr Ravi Gupta** Editor-in-Chief Ravi.Gupta@elets.in





## TECH-DRIVEN INDIAN BANKING INDUSTRY

#### **Aiming for Zenith**

anking as an institution originated in India around the late 18th century, essentially catering to the needs of the British government.

Post-Independence, the nationalisation of major private sector banks in 1969 is marked as an important milestone in the Indian banking system. This is said to be one of the initial steps taken in making banking accessible to the unbanked population in India.

Later, the economic liberalisation in the early 1990s acted as a catalyst and steered in the era of privatisation, giving birth to several new generation tech-savvy private banks.

In this era, few foreign banks commenced their India operations as well. All these banks, which were quick to leverage emerging technology, were competitive in attracting customers and winning them over by



professional services.

This, as a result, ignited a sense of urgency in public sector banks and older private sector banks to mend their ways, which, in turn, completely transformed banking operations in India.

#### Impact of the IT revolution

The opening up of the Indian economy in 1991 almost proved to be in sync with the worldwide Internet revolution (www). This, in return, doubly impacted the Indian private and public sector banks that were still stuck in the old traditional ways of performing.

With the rise of Indian IT services, within no time Indian banks started embracing technology wholeheartedly.

This channelised the emergence of business process automation in Indian banking segment. As a result of this initiative, customer service reported enhancement, reduction in manpower costs and increase in profitability.

Indian banking sector also saw a change gradually. Apart from normal banking products and services, the banks started selling third party products such as mutual funds and insurance to their clients.

This step proved to be positive as single window selling saved the customer's time and enabled the bank to enrich the relationship.

The Reserve Bank of India (RBI) played a pivotal role in this transformational journey, by issuing regulations and recommendations on banking mechanisation and computerisation.

Serveral significant steps, namely, establishment of computeried inter-connectivity across bank branches. introduction of MICR-based cheque clearing, revamping of payment services and settlements through Electronic Clearing Services (ECS), Real-Time Gross Settlement System (RTGS), National Electronic Funds Transfer (NEFT), paved way to the onset of banking technology revolution.

Regular advances in technology, growth in middleclass income levels, and rise in demand from a consumer-oriented financial market, soon transformed the Indian banking sector to a customer centric, technology-driven, financial industry, catering to the diverse needs of its customers.

Significant milestones in the Indian banking sector over the years, include a visible shift from traditional mode to channel-based banking.

One such revolution in the history of Indian banking was the introduction of ATMs (Automated Teller Machines). This service for the first time provided the customers in India with "any time" access to their money. The credit and debit card-enabled cashless transactions, introduced a revolution in the banking world.

Affordable technology-based infrastructure namely cheap, small but powerful computers and other handheld gadgets and higher Internet bandwidth within less investment gradually started ensuring easy access to banking products and effortless banking transactions.

Rise of call centres and phone banking services further added to customer convenience. A major change in banking was also observed through directing banking transactions via different electronic channels



and by providing customers direct access to their bank accounts, banks could now offer quick service and transparency as well. Several banks at the initiation of the above mentioned services also started offering incentives to customers for using non-branch channels.

All these major changes trimmed down the number of customer footfalls in the branches. The next noteworthy milestone in the segment was the introduction of mobile banking primarily through SMS.

Acting as a catalyst, the launch of smartphones created a revolution in the banking world. As the number of mobile phone users in India saw a robust rise, the banks explored the feasibility of using the omnipresent device as an alternative channel for delivery of full-fledged banking services.

According to Rajeev Arora, COO of the Fino Payments Bank, technology, has always been dependent on the customers' convenience as well as geographical factors.

"In the recent years, we focused inwards – using technology to improve process efficiency, risk analytics and enhancing productivity of our organisation. All these learnings will culminate to our payments bank, where we intend to ensure a 100 per cent paperless four-minute banking suite of solutions, using technology, especially eKYC (Know Your Customer), as an enabler."

#### Major technology trends fueling banking transformation in 2017

Projecting a major transformation towards technological innovation, the Indian banking system is on the verge of adopting several out-of-the-box measures. The onset of digital age and hyper-connected environment

BANK

have indicated the need for the banks to re-imagine their business continuously. And, the Indian banks are emerging as a leader in terms of transforming from digital to truly digital shape.

Some of the rising trends in projection towards the technology interface are:

#### The rise of open banking

Open banking is emerging as the future of banking. It will be acting as a connected ecosystem for financial and non-financial services with multiple underlying service providers.

The launch of Unified Payment Interface (UPI) by the National Payments Corporation of India (NPCI) has opened new vistas of innovation in the open banking space. The UPI is empowering payment service providers to come up with products/offerings without being limited by the underlying account relationships. Customers will be provided with the flexibility that they need and UPI will enable all service providers to innovate for better customer experiences.

According to Biju K, Chief Information Security Officer, Federal Bank, the Federal Bank believes in digitally influencing the life of customers with a guiding philosophy of "Digital at Fore, Human at Core".

"We are at the forefront of the digital banking narrative with the successful launch and operations of innovative products like Selfie (instant account opening), Lotza (UPI App), missed call banking, online personal loans, etc."

"We have implemented technology driven solutions for improving customer engagement by blending data insights through customer analytics and behavioral patterns," Biju K, Chief Information Security Officer, Federal Bank," he added.

#### **Banking on Cloud technology**

Clouds are providing a whole new set of innovations to the Indian banking industry. Several progressive banks have already adopted cloud technology, ensuring a safe future for data related services.

Technologies that are already transforming the face to banking business namely big data, blockchain, artificial intelligence (AI), IoT will be leveraged using cloud computing. Demonetisation in a major way has pushed the country towards a cashless society, and as banks prepare themselves to handle the increased influx of electronic transactions, cloud will provide banks with the required elasticity to meet these demands.

#### Blockchain

As banks are preparing themselves to be more agile and

efficient for meeting the rising demands of customers, blockchain will be one of the enablers for re-imagining processes.

In 2017, banks will essentially welcome projects to leverage the launch a blockchain.

According to Prasanna Lohar, Head of Technology, Digital Banking, DCB Bank, the banking services sector is yet to be "radically transformed but recent disruption has given clear indication for upcoming new business models" e.g. Aggregation of Services, banking will remain as a service, collaboration with Fintech is need of thetime, partnering for banking services is gaining momentum in India.

"Those working in sales and manufacturing will need new skills, such as technological literacy. Mobile, Internet and cloud technology are already impacting the way we work. Blockchain, Artificial intelligence (AI), 3D printing and advanced materials are still in their early stages of use, but the pace of change will be fast," he added.

#### **Artificial Intelligence**

Artificial intelligence (AI) has shown major potential towards transformation of both front office and back office operations with its cutting edge self-improving programmes.

Al has already proved itself in providing seamless differentiated customer experience on digital channels, and security measures with its integration within the banking infrastructure. Intelligent digital assistants are commonplace, and these self-learning programmes keep getting better with every interaction.

Today, the applications of AI are ubiquitous, ranging from data analytics to a number of tools like software testing, face detection, optical character recognition. AI is already being implemented across a number of service sectors including advertising and targeting, banking, finance, media, navigation, aerospace, agriculture and genetics.

According to Rajnish Khare , Head – Digital Transformation, Social Business & New Media and Mobility Banking, HDFC Bank, the HDFC Bank's approach to Al is holistic. "We have a strong testing & learning driven approach."

"Customer Experience, Customer Support, Process Automation, HR, Security, Fraud Detection are some of the areas where we will be developing our Al solutions. We don't want to just create gizmos. Our guiding principle is Generating Customer Value out of artificial intelligence. Toput it across as is, Al will help us manage both internal and external customers much more effectively and help reduce our operational costs



exponentially in the near future."

He says: "Our key developments in the Artificial Intelligence space includes HDFC Bank OnChat – An Al based e-commerce chatbot on facebook, Programmatic Ad Bidding – Al based ad bidding tool for digital marketing, HDFC Bank Ask "Eva" – Al based FAQ & customer service assistant and HDFC Bank "IRA" – Our Intelligent Robotic Assistant at branches."

"The realm of innovations pertaining to artificial intelligence extends to recruitment, customer service, core banking, employee training and engagement, operational efficiency, analytics and e – commerce. Also, many additional initiatives are in the development phase under these domains."

#### Conclusion

The message from the Indian banking industry is loud and clear. India is on its transformational journey to modernity and the change is indeed revolutionary. But concerns, namely rural-urban divide is waiting to get bridged for a long time now. The time has come to fuel up the financial inclusion and connect the rural with the mainstream economy. The progression should be harmonious and in perfect tune with the technology. Technology advancement is important but better awareness of its usage, to curb down the menace of malware and misuse is the need of the hour.

#### Industry Perspective RAJEEV ARORA



## FINO PAYMENTS BANK Taking Banking to the Masses

Fino believes in innovating new ways to improve customer engagement as well as process efficiencies. Technology for the brand has always been dependent on the customers' convenience as well as geographical factors. In the recent years, we focused inwards – using technology to improve process efficiency, risk analytics and enhancing productivity of our organisation, says **Rajeev Arora**, Chief Operating Officer (COO, Fino Payments Bank, in conversation with **Rashi Aditi Ghosh** of **Elets News Network (ENN)**. Excerpts:

ino Paytech is a payments technology company, soon to evolve into a payments bank, tell us about the journey.

We are soon to be a full-fledged payments bank. Our journey started 11 years ago. We were born to solve a problem hogging the banking infrastructure at that time. The banking sector in India realised that there was a huge growth potential in the hinterlands specifically beyond the select urban centres of India.

However, the challenge was the lack of access and high capital cost for setting up captive infrastructure in those centres – the semi urban and rural. The opportunity was attractive since these semi-urban and rural centres were served by informal banking sector leading to high rates and exploitation in the name of service. This is what led to the birth of banking correspondence business, and hence, us.

We partnered with ICICI Bank to spread financial

inclusion across urban, semi urban and rural centres initially and in due time, we partnered with largely every major bank and financial institution in the country to improve their reach, access. And further, the cause of financial inclusion of the underbanked and unbanked segments in India. In the process, we spread our wings across 28 states, 500 districts, 60,000 plus villages in India.

In 11 years, we have enrolled over 100 million customers for our partner banks and financial institutions and played a key role in improving the banking penetration in the country. In doing so, we not only created a unique company with on-ground intel and experience in a demanding segment but also cultivated a breed of professionals with rich understanding of the customers and geographies. Today, we employ over 3,000 people spread across five zonal offices across India. In addition, we have a network of over 25,000 banking correspondent agents across 28 states.

#### In alignment with "Digital India" initiative, Banking, Financial Services and Insurance sector is transforming, kindly share the measures taken by your institution to ensure the digital footprint.

We, at Fino, have always believed in innovating new ways to improve customer engagement as well as process efficiencies. Therefore, digital has been a way of life with us. Long ago, in the initial years, opening bank account was a tedious job. With a large number of people having functional literacy in the hinterlands and villages, the challenge was to improve the turnaround time without impairing the customer experience. We switched to digital account opening process with the mass adoption of smartphones and tablets by our engagement managers. It was closely associated with UIDAI during the Aadhaar development and implementation period, owing to our intensive work with biometric-based verification solution.

Technology, for us, has always been dependent on the customers' convenience as well as geographical factors. In the recent years, we focused inwards – using technology to improve process efficiency, risk analytics and enhancing productivity of our organisation. All these learnings will culminate to our payments bank, where we intend to ensure a 100 per cent paperless fourminute banking suite of solutions, using technology, especially eKYC (Know Your Customer), as an enabler.

### Fino PayTech is the only corporate banking correspondent involved in financial inclusion to have received the licence for Payments Bank from the Reserve Bank of India, how challenging is this?

We see it as an opportunity in many ways. One, the payments bank segment is unique and has no parallels

in any country. Two, the issue of financial inclusion and banking for the last mile has been persisting for over seven decades and need as many institutions to work together to address it. Three, with the organised banking sector making inroads, the parallel or unorganised economy will become less and less relevant – hence it will be a win-win for not only the customers but for overall economy as well.

What is extremely important is understanding the customer segment. We are the only player among the payments bank license holders, having operations and dedicated sectoral presence for 11 years. As a payments bank we achieve ownership of our customers and hence can now navigate our expertise to greater heights and wider scale of operations.

### Your institution has been in the rural payments business for over a decade, do you have plans to expand your reach in the urban areas as well?

As a payments bank, we are aiming to serve the mass market, i.e. whoever needs banking services in both urban and rural areas. To facilitate this, we are present closer to where customers either reside or work. We plan to reach our customers through a 400-branch and 25,000 banking points network in the initial phase covering rural and urban areas across 14 states.

#### Apprise us about your product BPay (a mobile wallet) and its unique quotient.

Along with the huge physical infrastructure to facilitate banking, we are also adopting a digital strategy to service our customers. Phygital (Physical + Digital) in short, is our overall customer service strategy.

FinoBPay is a platform that facilitates mobile banking for our tech savvy customers. It is one stop solution for the fastest online payment, Mobile recharge and Utility payment. It's simple, fast and secure. One can load money in his/her wallet using Debit / Credit Cards or Net Banking, save the preferred option for reloading quickly in future, send money with bare minimum clicks.



Fino switched to digital account opening process with the mass adoption of smartphones and tablets by our engagement managers on the field. It was closely associated with UIDAI during the Aadhaar development and implementation period, owing to our intensive work with biometric based verification solution."

#### Industry Perspective ASHISH GOPAL SAXENA



## AU Small Finance Bank PROGRESSING TOWARDS FINANCIAL INCLUSION

The economy is changing, so are the banking and the financial services in India. AU Small Finance Bank being the only Non-Banking Finance Company (NBFC) to have received the license for setting up a Small Finance Bank from the Reserve Bank of India sets up an example among other financial entities, says **Ashish Gopal Saxena**, Chief Technology Officer, AU Small Finance Bank, in conversation with **Rashi Aditi Ghosh** of **Elets News Network (ENN)**.

## U Financiers has recently converted itself from a Non-Banking Finance Company (NBFC) to a Small Finance Bank, what technological changes have the brand undergone post its transition?

On 19 August, 2015, the Reserve Bank of India (RBI) kicked off some transformative changes in the financial system of the country by giving licenses to 11 Payments Banks and 10 small financial banks. The main aim of this initiative was to bring the unbanked section of the society under the periphery of the formal banking system.

As soon as we received the license, we knew that we will have to start the entire banking operation afresh.

With Small Finance Banks, the Central Government wanted to expand the access to financial services in rural and semi-urban areas. These banks have the power to function almost like a normal commercial bank, but at a much smaller scale. It can offer basic banking services, accept deposits and lend to underserved sections of customers, including small business units, small and marginal farmers, micro and small industries, and even entities in the unorganised sector.

### Official statistics the suggest that 28 per cent (Census 2011) of Indian population has access to internet, how challenging is ensuring smooth banking services in such a scenario?

In India, there are ample challenges and opportunities. With Small Finance Banks reaching the unbanked was our main motive. We, therefore, laid out a strong distributor network so that we can reach the areas with low internet connectivity.

Before selecting an area of business, we carefully study the society and the people. This helps us in meeting the needs and demands.

The core of society is based on multiple factors that enhances the ability of a brand to spread the network. We make optimum use of it.

### Instances like demonetisation and banking data breach have inflicted new threats in the banking domain. What steps do you suggest to curb this menace?

As a financial entity the need to understand the changing dynamics of the economy is important. We keep a regular tap on threats that arise due to rising digitisation. Several services like internet banking and mobile banking which play a pivotal part in the digital banking era are at a risk of malware infestation.

In addition to this, we also focus on various areas like rural banking, Financial Inclusion etc. With changing times, we are ready with our innovations.

### Small Finance Banks are changing the outlook of banking in India, what innovations is your company ensuring in realising this transformation?

The Central Government initiated the concept of Small Finance Banks with a motive to reach the unbanked. When we along with other 10 financial entities received licence from the Reserve Bank of India, we knew that the central bank could see our potential to excel. We were the only NBFC so that suggests we must have had shown some potential through our hard work and dedication.

We are very thankful to the regulator for giving us this





As a financial entity the need to understand the changing dynamics of the economy is important."

golden opportunity.

We have planned several innovations and digital solutions for our customers that we will unveil in future. We are setting up several technological advancements that will make banking an easy task for our customers and thus assisting us in meeting the customer needs efficiently.



## IT'S NOT AI AS NEW UI OR MOBILE FIRST It's People First Culture!

hen discussing the subject of digital transformation, we keep on hearing a similar feedback, the most common being: "My teams don't collaborate effectively even if I've bought all these great new digital and technical tools. But my employees refuse to use them" and "I can't attract or retain the right talent for my digital business". Or, "I don't have the right set of skills or people to adopt digital journey".

A solution for all such challenges is needed for digital transformation. What is needed is the importance of having the right culture in place to support the required radical change.

It has been identified that a major cultural disconnect could be between leadership and employees. Leaders need to take a long hard look at their organisational culture and assess if it truly supports transformation and innovation and examine their own behaviour and actions while being prepared to challenge them. Leaders need to engage, empower and inspire all employees to

"enable the culture change together".

#### Disruption in People's Skill set

The nature of the disruption or change will depend very much on the industry itself. The banking services sector, however, is yet to be radically transformed but recent disruption has given clear indication of upcoming new business models e.g. Aggregation of Services, banking will remain as a service, collaboration with Fintech is need of the time, partnering for banking services is gaining momentum in India.

Those working in sales and manufacturing will need new skills, such as technological literacy. Mobile, Internet and cloud technology are already impacting the way we work. Blockchain, Artificial intelligence (AI), 3D printing and advanced materials are still in their early stages of use, but the pace of change will be fast.

As per a study, five years from now, over one-third of the skills (35 per cent) considered important in today's workforce will change. What is certain is that the future workforce will need to align its skill set to keep pace.

The top 10 skills required for meeting disruptive revolution are:

- ♦ Complex Problem Solving
- Critical Thinking
- Creativity
- People Management
- Coordinating with Others
- ◆ Emotional Intelligence
- ♦ Judgement
- ♦ Service Orientation
- Negotiation
- Decision-Making

#### Cognitive Flexibility

Let's look at Fourth Industrial Revolution. By 2020, the Fourth Industrial Revolution will bring advanced technologies like robotics and autonomous transport, AI and machine learning, advanced materials, biotechnology and genomics. Some jobs will disappear, others will grow and jobs that don't even exist today will become commonplace.

It's important to build people skill set and resource pools around relevant skills. Here is the list of new jobs that didn't exist a decade ago.

INNOVATION MANAGER - Role of Innovation Manager is very important in creating Innovation Culture and Solutions. It will help in meeting following expectations:

- To promote and work with new technologies from start-ups and Fintech to make banking as seamless as possible.
- ◆ To explore new applications based on emerging technologies.
- To move as fast as we can to compete with upcoming disruption Eco Systems, Payment Bank, Fintech etc.
- To experiment and adopt advanced digital technologies and help internal teams to implement.
- Bridge between project teams and emerging innovations that we believe could have big impact on development.
- Play a pivotal role in bringing these innovations to bank and helping scale them up.

CYBER SECURITY EXPERT - Role of Cyber Security expert is very important in creating Security Awareness Culture and latest Secure Solutions. Thousands of cyber security problems are annually identified in technologies from well-known vendors. While we depend more and more on technology, technology is becoming more and more insecure. It is important to be aware of the serious cyber security problems currently affecting technology.

 3. 3-D PRINTER DESIGN SPECIALIST - 3-D printers have been a boon to the manufacturing and prototyping industries for years, yet the large majority of the consumer population seems to have little interest in learning to use them. In future, it will be need of the time.

4. VIRTUAL REALITY EXPERIENCE DESIGNER - Part of the expansion of the Internet of Things into our homes will involve the increasing use of virtual reality for work and play. Service Centres, offices could become obsolete if you can just log in virtually from your home office and interact with your colleagues as if you were in the same room.

PERSONAL WORKER BRAND COACHES AND MANAGERS – "Nowadays we're predicting that nearly 25 per cent of today's full-time employees will be working on demand," say experts referring to the increasing preference of companies to hire freelancers for short contracts when required than keeping permanent staff.

MILLENNIAL GENERATIONAL EXPERT - Generational consultants help companies better understand the changing workforce — and who can better explain the Millennials than a living member of Generation Y. Companies in every sector and of every size face the challenge of recruiting and developing young professionals to prepare them to be future executives.

MARKET RESEARCH DATA MINER - As customer information becomes more and more vital to the retail experience, businesses are compiling data in droves and hiring experts to make sense of it. From different datasets including structured (transaction), semi-structured (user behaviour) and unstructured (text) information, data analysts and scientists look for behavioural patterns to help retailers and businesses predict future trends or to build recommendation engines or personalised advertising.

APP DEVELOPER - The iPhone was introduced in 2007, the Android shortly after. Since then, more than a million apps have been put up for sale in Apples App Store and Android's Google Play.



#### **Industry Perspective**

DRONE OPERATORS - The global market for unmanned aerial vehicles (UAVs) has been growing rapidly, creating job opportunities for drone operators.

VIDEO CONTENT CREATORS - Thanks to YouTube and other video-sharing platforms that followed in its wake, video-blogging or 'vlogging' is now a career, with the most successful YouTube stars attracting millions of dollars through advertising, social media management and sponsorship deals.

BIG DATA ANALYST/ DATA SCIENTIST - With volumes of data growing at a rate of 40 per cent a year, it's no wonder that people who can analyse and process all this information are in high demand; Al can improve customer personalisation, identify patterns and connections that humans can't, and answer questions about banking issues in real-time. Financial institutions are already finding success with Al. However, what may be amazing today will be table stakes in the near future.

CLOUD COMPUTING SPECIALIST - A decade ago, if somebody claiming to be working in cloud world surprise all. In near future, this will be a key role. Cloud-based payments enables you to make NFC based payment (Tap & Pay), using your mobile handsets and can be implemented through cloud-based security and tokenisation. Build Payments idea / solution that is digital, multi-channel, real-time, fast, flexible, convenient and can disrupt the payments landscape.

SOCIAL MEDIA MANAGER - In 2006, social media managers were not required as most platforms were yet to be created. Today, Facebook has over 1.5 billion users worldwide and, alongside other platforms like Twitter and Instagram, it has become an indispensable marketing tool for consumers engagement for brands.

UI/UX DESIGNERS - In 2006, Facebook was in its infancy, Twitter was being launched, and nobody had iPhones. Ten years on, the world is a very different place, and so is the workplace. With increasing mobile phones and similar kind of Applications there's competition among services. Winner is decided by great UI and UX.

WRANGLING NEW TECH - It's hardly news that hard-core tech folks - coders, IT managers, server administrators - have a major edge when it comes to valued job skills. A LinkedIn analysis of the most indemand skills for 2017, for instance, found that 19 of the top 25 were technology-related, with the top of the list dominated by cutting-edge areas such as cloud computing, software development for mobile devices, and online security.

SUSTAINABILITY MANAGER - Sustainability is becoming increasingly important to organisations these days. Even companies that aren't working in 'green' sectors are hiring people to help them use their

resources more effectively and make environment friendly decision.

#### Building "True Digital Culture - TDC"

Let's look at my view to build a "True Digital Culture - TDC". It's is a core strategic pillar for maximising the value of your technology investments and realising the full value of your new business models, products, and operations. I propose below factors to create a "True Digital Culture-TDC".

Be at digital culture: The only way you can transform into a digital business is if you have the right culture in place. To embed digital from on-boarding to exit, supporting employees at every step and enabling them to live and breathe digital ways of working.

Have a Customer Centric Mindset: You need to build a digital, customer-oriented culture inside the bank. Re-engineer your business to consumer processes. Start with the end in mind, using overall customer experience you want to achieve as opposed to starting from a legal and regulatory constraint perspective.

**Be IT Strategic:** Make IT the centre of your strategy. Put your CDO, CINO, COO and CIO at the heart of your business, working alongside finance, marketing, etc

**Be a Challenger:** Challenge your own business model and traditional working style.

**Be Collaborative:** Work with Fintech Start-Ups. Incumbent banking organisations need to streamline their operations and narrow business and product development focus.

**Be In Open environment Architecture:** Openness is the key word – you need an Open programmable, Agile Process and Skilled people to drive it.

Be Innovative: Innovation can be fuelled by science and technology, can entail improved ways of working with new and diverse partners, or can involve new social and business models or policy, creative financing mechanisms, or path-breaking improvements in delivering essential services and products.

You need to understand the different leadership models that must be deployed in various parts of your organisation to achieve your unique digital goals. The message is clear "Focus on People and Culture or your Digital Transformation will fail". I find "True Digital Culture-TDC" can –

Improve their relationships with customers. Attract the best talent and set themselves up for success in today's digital world and will positively help your ability to compete and grow. ■

The writer is Prasanna Lohar | Head Innovation & Architecture | DCB Bank)

Tech Leaders from the Insurance sector, NBFCs & Cooperative Banks are all set to be a part of Elets FinServ Tech Summit in **Mumbai in October 2017!** 

#### FinServ Tech Summit

**NBFC** • Insurance • Cooperative

October | Mumbai

Digital transformation is changing the financial services landscape in the country. Be it Insurance sector, Non-Banking Financial Companies (NBFCs) or Cooperative banking spectrum, technology is playing the role of game changer. Recognising the significance financial services sector and the role of technology in it, Elets Technomedia is proud to announce Finsery Tech Summit in the Financial Capital of the country-Mumbai in October 2017.

Through Summit, we will highlight the seminal role that Insurance, NBFCs and Cooperative banks are playing towards enhansing the financial inclusion.

#### **Discusssion points**

- Financial Inclusion
- Digital Banking
- Robus Payment System
- Fintech Innovation
- Cyber Security
- Fraud & Risk Management
- Core Banking Solutions (CBS)
- Artificial Intelligence (AI)
- Cloud, Big Data & Analytics
- Block chain

For Queries, Contact:

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**Banking and Finance Post** 

## **FEDERAL BANK**Driving Indian Banking Digitally

The Federal Bank believes in digitally influencing the life of customers with a guiding philosophy of 'Digital at Fore, Human at Core'. We are at the forefront of the digital banking narrative with the several successful operations of innovative products, says **Biju K**, Chief Information Security Officer, Federal Bank, in conversation with **Rashi Aditi Ghosh** of **Elets News Network (ENN)**.

ive us an overview of your services in India.

We are a digitally enabled bank having our presence across the country, with a focus on micro, medium and middle market enterprises. We offer a full range of contemporary products across all segments with a diversified product mix focused towards retail. We also offer a full range of services to non-resident businesses through the IFSC banking unit at Gift City, Gujarat.

The Indian banking segment is transforming drastically

due to technology interface, how has Federal Bank

changed in sync with this?

Federal Bank believes in digitally influencing the life of customers with a guiding philosophy of 'Digital at Fore, Human at Core'. We are at the forefront of the digital banking narrative with the successful launch and operations

of innovative products like Selfie (instant account opening), Lotza (UPI App), missed call banking, online personal loans, etc. We have implemented technology-driven solutions for improving customer engagement by blending data insights through customer analytics and behavioural patterns. Federal Bank's position at the forefront of the technology-driven transformation of banking in India has won us awards and accolades from various organisations, both at the national and international level.

### With the rise of technology, risk of malware infestation is also high, what measures are being taken by the bank to ensure the safety net requirements in this regard?

We have established robust information and cyber security frameworks for securing the IT infrastructure and systems. Technology solutions are used for preventing and detecting information and cyber security risks including those related to malware. The policies and practices relating to security are periodically reviewed and updated in tune with the prevailing and anticipated threat environment. A wide range of system audits, ranging from Vulnerability Assessments (VA) and Penetration Testing (PT) to concurrent audits to an annual end to end audit of IT infrastructure, are conducted using internal and external auditors for assessing the security posture of the bank. We have also obtained ISO 27001 certification on Information Security Management Systems for critical IT areas.

Digitisation has geared a new momentum in the Banking,



#### Financial Services and Insurance (BFSI) sector, how can this fuel up the financial inclusion?

Financial inclusion has received a boost with digital enablers such as instant paperless account opening using Aadhaar, Aadhaar enabled payment systems, interoperable mobile payment platform, Unified Payment Interface (UPI), NUUP (National Unified USSD Platform) Services for basic feature phones etc. These combined with the high penetration of mobile services in India can expand the banking services to each nook and corner of the country in a cost efficient manner while providing round the clock accessibility.

#### Federal Bank, which has tied up with SB Global Educational Services and opened skill training centres in Kerala and Coimbatore, plans to train more number of people in these centres this year, what is the bank aiming at?

Federal Bank started the Federal Skill Academy at Kochi as part of the Corporate Social Responsibility initiatives in 2015 with the objective of imparting quality technical education to merit oriented candidates from economically underprivileged background. A second skill academy was started at Coimbatore during the FY 2016-17. The three-month course offered by the skill academies include training programme in soft skills improvement and technical skills along with industry exposure to attain IAPMO Plumbing Codes and Standards India Private Limited (known as IAPMO India) Certification which is



Federal Bank has established robust information and cyber security frameworks for securing the IT infrastructure and systems."

recognised worldwide. Placement assistance is also provided to the candidates.

#### Kindly share your future initiatives in alignment with the Central Government's "Banking for All" vision.

The financial inclusion model of Federal Bank is aimed at extending financial services to the large unbanked population of the country and achieving more inclusive growth by making financing available to the poor in particular, which is in alignment with the "Banking for All" vision of the Central Government. The bank is organising financial literacy campaigns through its 153 rural branches and 22 Federal Ashwas Financial Literacy Centres pan-India. For migrating more individual to digital banking platforms the bank is actively participating in governmet's 'DIGI DHAN Melas' and 'Going Digital' camps. The bank has recently established a Micro Banking Department with a view to develop and strengthen self-help groups and build financial systems that serve the poor, to promote socio-economic development at the grassroots, level through communitybased approach.



## INDIA POST Serving the Common Man

In an era when rapid banking transformation is being carried out with the support of technology, opening a bank account with Rs 20 and maintaining it with just Rs 50 as minimum balance, without inviting penalties, seemed unfathomable. But thanks to the India Post (Ministry of communications) which has made this unthinkable turn into a reality, writes **Rashi Aditi Ghosh** of **Elets News Network (ENN).** 

#### ndia Post: The New Bank in the Making

In an endeavour to meet the general public's expectations, the postal department migrated about 23,091 post offices to Core Banking Services(CBS) last December and 968 ATMs are operational. (as on on 27 December, 2016).

Further, the Department of Posts, Ministry of Communications, has set up "India Post Payments Bank" as a Public Limited Company with 100 per cent Government of India equity. After the grant of licence from the RBI, the India Post Payments Bank (IPPB) has launched two branches in Raipur and Ranchi on January 30, 2017 with limited banking services.

#### State/UT-wise Number of Post Offices functional in the country (as on 31.03.2016)

States/UTs	Total Number of Post Offices
Andhra Pradesh	10,322
Assam	4,012
Bihar	9,037
Chhattisgarh	3,157
Delhi	554
Gujarat	8,926
Dadar & Nagar Have	eli 38
Damn & Diu	19
Haryana	2,684
Himachal Pradesh	2,,785
Jammu & Kashmir	1,701
Jharkhand	3109
Karnataka	9663
Kerala	5057
Lakshdweep	10
Madhya Pradesh	8286
Maharashtra	12601
Goa	258
Arunachal Pradesh	301
Meghalaya	491
Mizoram	389
Manipur	702
Nagaland	330
Tripura	710
Odisha	8169
Punjab	3810
Chandigarh	51
Rajasthan	10318
Tamil Nadu	12035
Puducherry	96
Telangana	5835
Uttarakahnad	2721
Uttar Prradesh	17662
West Bengal	8762
Andaman & Nicobar	100
Sikkim	209

As ATMs have become vital part of the banking system, the India Post customers having debit card can do transactions on other bank ATMs and similarly other bank customers can transact on post bank ATMs.

#### The Number of ATMs Installed

States/UTs	ATMs Installed
Andhra Pradesh	95
Assam	26
Bihar	43
Chhattisgarh	14
Delhi	26
Gujarat	41
Haryana	20
Himachal Pradesh	20
Jammu & Kashmir	9
Jharkhand	19
Karnataka	76
Kerala	42
Madhya Pradesh	52
Maharashtra	75
North Eastern States	13
Odisha	44
Punjab	26
Rajasthan	64
Tamil Nadu	97
Uttar Pradesh	86
Uttarakhand	18
West Bengal	64
Total	970

#### Payments Bank: Banking the Unbanked

A Payments Bank is a "differentiated bank" set-up under the guidelines of the Reserve Bank of India (RBI) to further financial inclusion for the unbanked population by providing:

- Current and savings accounts and
- Payments or remittance services to migrant labour workforce, low income households, small businesses, unorganised sector entities and other users. (Source:Lok Sabha)





As of now 970 ATMs have been installed at major post offices across the country."

Payments bank is similar to a universal bank, except in a few key areas, as stated below:

- Payments Bank can accept demand deposits only i.e. savings and current accounts and will initially be restricted to holding a maximum balance of Rs. 100,000 per individual customer.
- Payments, Bank cannot accept NRI deposits
- Payments Bank are not allowed to undertake lending activities directly and cannot grant loans Payments Bank cannot set up subsidiaries to undertake nonbanking financial services activities.

#### Minimum Bank Balances

Minimum balances for various bank accounts		
SB(Cheque account)	INR. 500/-	
SB(non Cheque account)	INR. 50/-	
MIS	INR. 1500/-	
TD	INR. 200/-	
PPF	INR. 500/-	
Senior Citizen	INR. 1,000/-	

#### **Post Office Saving Schemes**

- Post Office Savings Account
- 5-Year Post Office Recurring Deposit Account (RD)
- Post Office Time Deposit Account (TD)
- Post Office Monthly Income Scheme Account (MIS)
- Senior Citizen Savings Scheme (SCSS)
- 15-year Public Provident Fund Account (PPF)
- National Savings Certificates (NSC)
- Kisan Vikas Patra (KVP)
- Sukanya Samriddhi Accounts



## The Rise of ARTIFICIAL INTELLIGENCE

he world of banking and finance is changing more than ever, with Artificial Intelligence (AI) being the front-runner in bringing about a seachange in the banking industry.

Various AI solutions have already been implemented in banking across various areas like core banking, operations efficiency, customer facing services and analytics. With the onset of AI, banking will no longer be just apps, websites or physical branches but a whole new experience.

#### **Evolution**

Although, it is only recently that we have witnessed the application of AI, the history of AI goes back to the 1950s where a paper was published by Alan Turing about the possibility of machines with true intelligence.

This was only the inception of Artificial Intelligence as a concept, but no use case or Al process was implemented until the late 1990s. The pace of Al only picked up after 2011, wherein prominent tech companies like IBM, Microsoft, Google and Facebook started



investing in Artificial Intelligence and Machine Learning for commercial applications.

Microsoft and Apple marked their debut in 2011 with Cortana and Siri (Virtual Personal Assistant) respectively. The trend was then picked up with DeepMind team, that used deep learning algorithms to create a programme that won Atari games. Facebook also backed Al with the launch of Moments, that detects faces in photos shared with friends.

#### Adoption

Today, the applications of AI are ubiquitous ranging from data analytics to a number of tools like software testing, face detection, optical character recognition. AI is already being implemented across a number of service sectors including advertising and targeting, banking, finance, media, navigation, aerospace, agriculture and genetics.

In 1990, big techs concentrated on research in the AI industry enhancing its scope to natural language processing, image recognition, deep learning, speech recognition and emotions. This was later picked up a number of start-ups with a view to create business value. New category leaders will appear by 2020, which will be marked as the inflection point for Artificial Intelligence. This will be followed by rise in new leaders and the consolidation of laggards.



HDFC Bank's 'Ask Eva' is another initiative for enhanced customer engagement using automated and personalised response. It is an intuitive and interactive way to engage people's search questions with instant answers in a conversational manner.

#### Al in Financial Services

Currently, the application of AI in the financial service sector is at a nascent stage. We are still to witness a number of changes in the way communications, customer service, recruitment and wealth management takes place across the industry. For example, today stock trading and investing happens mainly on personal skills and divine luck. But, in future, we will be able to manage wealth with the help of sentiment analysis, crowd sourced research and algorithms.

#### **Emerging Technologies and Artificial Intelligence at HDFC Bank**

To stay ahead of the technology curve in the industry, HDFC Bank has made sure to leverage emerging technologies across its range of services. We are all pervasive even when it comes to the range of data connectivity. Solutions like our MobileBanking App,

#### **Industry Perspective**

Al based OnChat has been developed for customers who enjoy good connectivity. Customers who struggle with limited connectivity issues have LITE App and m-site to avail banking services, whereas customers with no connectivity or feature phones have missed call commerce, SMS/ Toll-free banking at their service.

HDFC Bank's approach to AI is holistic. We have a strong testing and learning-driven approach. Customer experience, customer support, process automation, HR, security, fraud detection are some of the areas where we will be developing our AI solutions. We don't want to just create gizmos. Our guiding principle is "Generating Customer Value" out of artificial intelligence. To put it across as is, AI will help us manage both internal and external customers much more effectively and help reduce our operational costs exponentially in the near future.

Our key developments in the Artificial Intelligence space includes HDFC Bank OnChat – an AI based e-commerce chatbot on facebook, Programmatic Ad Bidding – AI based ad bidding tool for digital marketing, HDFC Bank Ask "Eva" – AI based FAQ and customer service assistant and HDFC Bank "IRA" – our intelligent robotic assistant at branches. The realm of innovations pertaining to artificial intelligence extends to recruitment, customer service, core banking, employee training and engagement, operational efficiency, analytics and e – commerce.

Also, many additional initiatives are in the development phase under these domains.

HDFC Bank OnChat is a chatbot based on Artificial Intelligence and Natural Language Processing, wherein user can interact, confirm and pay for services within chat itself without any additional app download.

Currently, three services are enabled on the platform and an addition of 12 services will be added. HDFC Bank's 'Ask Eva' is another initiative for enhanced customer engagement using automated and personalised response.

It is an intuitive and interactive way to engage people's search questions with instant answers in a conversational manner. Ask Eva has cognitive learning capabilities that is able to understand and act upon the user queries. Our third Al initiative is 'IRA – Intelligent Robotic Assistant' available in branches. The assistant is able to meet, greet and guide customers as per their requirement. We have also tapped upon Al for adbidding which helped us in increasing the conversion rate by five times. This initiative helped in reducing the overall cost of acquisition for digital products and in improving overall profitability.



#### IoT and AI - The Interdependence

This being said, to ensure success, one of the major factors of Al will be its interoperability with Internet of Things. The number of connected devices grew by approximately 44 per cent from 2003 to 2016. The rise of IoT was faster than anticipated and it is important to keep pace with it, as it is this conversation between man and machine where the intelligence emerges. The challenge here is dealing with incompatible APIs and disparate systems of devices, cars and applications fails the interoperability of IoT.

#### **Future View**

The AI revolution is not only restricted to the banking sector. There are a number of other industries that have already witnessed the impact of AI. Some of the highlights of the industries include automatic delivery of anaesthesia for standard procedures, thus helping in cost reduction, enhanced customer service, roboadvisers that provides recommendations to financial clients based on financial data or the advent of self-driving cars. All these will help the industries in replacing mundane and repetitive jobs like form filling and backend verification.

In conclusion, we at are at cusp of an artificial intelligence revolution. Improvement and development in the Al industry, will increase productivity at a reduced cost. Managers across industries will have to raise their ante on skill-set upgradation.

Whereas we, at HDFC bank, aim to make Al a part of our digital DNA. ■

(The writer is Rajnish Khare | Head – Digital Transformation, Social Business & New Media and Mobility Banking | HDFC Bank. The article is his personal analysis.)

## The Road to Digital Lending with NEW-AGE BANKING

igital lending and digital loans are very quickly changing the lending scenario and are a topic of discussion across the banks' board rooms. The reason why so many banks are interested in digital loans is because of the scale and financial inclusion they can bring along with solving massive operational challenges related to the traditional offline lending models.

But what only the few leading enterprises have realised till now is that the road to digital lending cannot be traversed with existing legacy engines and system architectures. If an enterprise wants to achieve digital enablement of loans in its true sense, it needs to think very differently and challenge every legacy system that will hinder their speed and product requirements.

#### Creating New Digital Lending Architecture

One of our clients who is also one of the leading Non Banking Financial Companies (NBFCs) in the country decided to not use any of their existing legacy systems for their digital lending SBU. They chose to build a new digital lending system with us on an open source stack that gave them the agility to go to a market in a couple of months and the flexibility to create their own product roadmap.

Hence, now their business is governing technology and product roadmap rather than the other way around. They have complete control on the features they want, the partners they want to integrate and the parameters they want to include in their credit model.

With a more flexible digital lending architecture, today they have the capability to configure and launch new loan product to micro-customer segments very quickly in the market.

#### **Customer Experience**

Digital lending aims at managing the complete customer's loan lifecycle on a digital interface from sourcing to evaluation to disbursement and servicing. If the enterprise wants this journey to happen in a self-serviced digitally enabled model, it becomes extremely important to take care of customer experience.

The technology architecture of your digital lending

platform will play a key role in ensuring that the right customer experience can be provided. The speed of the application is one of the key reasons why customers drop off. Another architecture failure is when you realise that your desired UX / UI design cannot be delivered in a certain tech framework

Hence, having the right tech architecture that enables desired customer experiences is of paramount importance to the success of your digital lending strategy. Here, the modern micro-services driven / service oriented architectures are especially useful. They achieve abstraction at every level to ensure the backend or business logic provides no constraints onto the presentation layer or user interface.

#### **Building your own Digital Lending Product**

The biggest hurdle we have seen in a successful digital lending initiative is the enterprise mindset to procure software products to fuel their digital lending strategy.

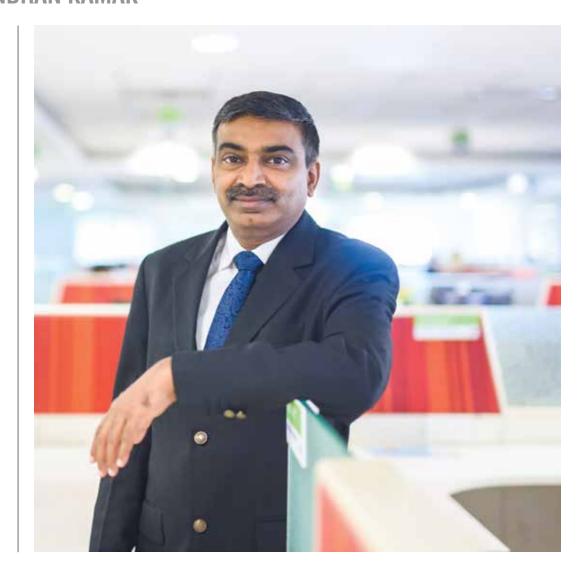
The true power of a digital lending platform can be explored when you start getting the flexibility to launch features, products and capabilities based on the business requirement and have least technology constraints to it. Hence, it is not possible to build such kind of a system over an existing software product that by default comes with a limited set of features and is not engineered to handle quick upgrades and enhancements.

Perhaps that is the reason that we have seen some of the most successful digital lending initiatives choosing to build their own product rather than taking a system integration approach.

The concept of digital lending is still fairly new, and the road to achieving the perfect state is still full of unexpected turns. However, what is undeniably true is that to achieve digital success, banks will need to acquire a 'digital-first' mindset.

(The writer is Achintya Gupta | Director-Kuliza. Kuliza helps some of the leading financial enterprises in their Digital Lending implementation and digital commerce transformation journeys.)

#### Industry Perspective BHUVANENDRAN KAMAK



## TransUnion CIBIL Ltd DIGITISING SYSTEMS FOR FUTURE-READY BANKING

The BFSI sector in India has transformed swiftly in alignment with technology. The advancement could be possible as there were no constraints with regard to age-old applications or mainframe-based technologies, says **Bhuvanendran Kamak**, Chief Information Officer (CIO), TransUnion CIBIL Ltd, in conversation with **Harshal Yashwant Desai** of **Elets News Network (ENN)**. Excerpts:

#### ow do you rate the current technology standards followed in the Indian BFSI Sector?

Technology adoption in India has evolved at a very fast pace in comparison to other international markets. This is primarily because India has not been constrained by too many legacy applications or mainframe-based technologies. Even Public Sector Banks today have a core banking system with a digital strategy in place. However, India still has a long way to go when it comes to things like high-end technology research and creation of a conducive ecosystem for start-ups. Also for data capture, authenticity and timeliness are also the challenges yet to be addressed.

#### How has the technology evolved within your organisation over the years? What are the driving forces for rapid technology transformation within your organisation?

We are one of India's largest Big Data companies. At TransUnion CIBIL, technology is definitely at the core of everything we do. Therefore, we view technology as a key differentiator. Given the same, over the years, we've continuously invested in upgrading our technology to stay "ahead of the curve". While originally, technology served primarily as an enabler to run the business and was driven by our business strategy, we're now reaching a stage where our technology is actually at the front, driving new, cutting-edge capabilities, thereby influencing our strategy in terms of what more can we can do in future.

#### Apprise us on the challenges faced by your organisation?

Challenges faced by TransUnion are essentialy related to adoption of new products. It is challenging to meet the need of our customers as existing workflows need to be digitised and policies need to be changed quickly.

#### Would you throw some light on the significance of your new system -CreditVision? How this system will pave the way for possibilities to expand the retail credit market?

CreditVision is truly a next-generation product which will transform the retail credit market in India, as it has done successfully in other countries where it has been launched. The concept of CreditVision is that by looking at a consumer's trended credit scores over a period of time (rather than a fixed score at a given point of time) and by combining this with credit-payments-related information, we can return significantly add more valuable insights on the consumer to banks/financial institutions, thereby enabling them to distinguish the riskiness of two consumers who originally looked the same to them (since





India still has a long way to go when it comes to things like high-end technology research and creation of a conducive ecosystem for start-ups. Also for data capture, authenticity and timeliness are also challenges which need to be fixed."

they had the same absolute credit score). CreditVision has several use-cases, but in its first avatar in India, it will enable banks to acquire more customers by giving them an "acquisition lift" over their existing models.

#### Which are the most remarkable Next-Gen initiatives? How Big Data is enabling TransUnion CIBIL Ltd to excel in its operations?

We are a Big Data company, and we're driving Next-Gen initiatives to acquire, process, store, query and combine the data in unique ways. Our Big Data initiatives are enabling our member financial institutions to grow their business by providing them with rich insights across the lending value chain. For instance, we help banks with their distribution strategy by giving them unique insights into lending patterns across products, locations and demographics.

#### Tell us about your future initiatives.

TransUnion CIBIL is currently investing in its technology across three large areas, namely - Big Data, data science (algorithms and model building), and an API framework for streamlining fulfilment. These investments will drive the next stage of our technology evolution in

#### **UIDAI** Perspective

#### DR AJAY BHUSHAN PANDEY



## UIDAI to Act Tough WITH SECURITY AND LEGAL PROVISIONS

Over the years, UIDAI CEO **Dr Ajay Bhushan Pandey** has closely worked with Central and State governments, banks, oil companies and other stakeholders to enable use of Aadhaar platform in Direct Benefit Transfers, Financial Inclusion, and e-Governance. **Gautam Deb Roy** of **Elets News Network (ENN)** tries to decode **Dr Pandey's** various strategies.

itting at the helm of affairs of India's most important authority - Unique Identification Authority of India (UIDAI) - Dr Pandey has rolled up his sleeves to protect country's interest at any cost.

How do you define the role of Aadhaar in the current scenario?

Aadhaar is now the most credible identity. Now, more

than 116 crore people in India have Aadhaar. More than 99 percent of adults in the country have been enrolled Aadhaar. More than 75 per cent of schoolgoers have their Aadhaar identity. Now, Aadhaar is a verified proof which is used across sectors. Today, with Aadhaar you can open bank account; you can have a pan card. You can get many services in a very hassle free manne.

If you see the convenience for people, earlier you



had to give lots of documents to prove your identity. Today, you just have to give your Aadhaar number. Even for opening a bank account, you have to give your Aadhaar number and authenticate it and you will get your bank account opened. With the use of biometrics, your eKYC comes to the bank and you get your account opened. Earlier, when you used to apply for passport you needed to submit lots of documents which required verifications too. Now also verification is required, but the time of issuance of passport

decreased due to Aadhaar. On the other side, Aadhaar ensures that nobody can snatch your rights. Earlier, you needed to go to the PDS and stand in queue for your ration and by the time your turn came, you were informed that the stock was finished. But now, rations are being given only on the basis of Aadhaar and authentication. Now, the ration shopkeepers can't divert the ration meant for you. If there is a pension or MNREGA wages. I am entitled to get my wages; I don't have to be at the mercy of any local middleman or a local contractor.

So, this way Aadhaar has done a lot of empowerment. And that is the reason why more and more services are opting for Aadhaar authentication. It removes duplicity, it removes fakes and bogus and empowers people.

#### How did Aadhaar act against laundering?

Now if you look from the government point of view, while the citizens have been empowered, it is also saving lots of government money which was earlier siphoned away. During the last three years, the government saved a total amount of Rs 56,000 crore.

There was the World Bank report which says that if Aadhaar is used in all government welfare programmes, more than \$ 11 billion could be saved every year, which is almost equivalent to Rs 70,000 crore every year!

#### What is the benefit of linking Aadhaar with



Aadhaar is now the most credible identity. Now, more than 116 crore people in India have Aadhaar."

#### bank accounts?

Once you link Aadhaar with bank account it serves many purposes. On several occasions, we have seen benami (unknown) accounts or unscrupulous people open bank account for fraudulent purposes. Now all these things would be curbed when banks are linked to Aadhaar and accounts are opened through Aadhaar authentication. This is also a very big benefit. It helps in curbing black money, money laundering and all other illegal activities. It helps the government in saving money by stopping various leakages.

#### With such a huge task in hand, how do you propose to enroll each and every citizen of India?

We have already enrolled 116 crore people and we will continue enrolling many more people, because enrolment is a continuous process. Along with enrollment, we need to update the information of the people. Every citizen must have to update their address in the Aadhaar card. Surname of many people gets changed after marriage, so that too needs to be updated.

For this purpose, we have setup Aadhaar enrollment centres all across India. People can go to any of the centre and authenticate themselves with the biometrics. Now with Aadhar Act in force, any organisation which is asking Aadhaar on a mandatory basis could be required by UIDAI to have Aadhaar enrollment centres. Now for bank account, Aadhaar account is necessary. So we have asked banks to have Aadhaar enrollment centres in their premises. It will help people to enroll as well as update their address whenever required. We are asking all departments, who are asking for Aadhaar on a mandatory basis, to have Aadhaar enrollment centres.

#### While managing such a huge database, do you have any threat perception?

Yes, of course. Threats are always there. We are very much aware of the threat perception and we do take all necessary precautions for data security. We ensure that there is no breach in the security system. According to the Aadhaar Act and Information Technology Act, any attempt to breach Aadhaar security system is punishable of imprisonment upto 10 years. We have very strong legal provisions. We also have a strong technological infrastructure, so that the data remains safe and secured.

#### Industry Perspective ASHOK ACHARYA



### **VEEAM SOFTWARE**

## Leveraging Virtualisation in Banking

Veeam Software is working with some of the biggest names in the industry. We are proud that these banks showed faith in our products and we are keeping the faith intact, says **Ashok Acharya**, Regional Director, India & SAARC, Veeam Software, in conversation with **Harshal Yashwant Desai** of **Elets News Network (ENN)**.

indly apprise us on Veeam Software and its operations in India particularly in BFSI vertical

Veeam Software is a 10-year-old private organisation headquartered in Switzerland. We have our branches spread across 69 countries. By leveraging virtualisation, storage and cloud technologies, we are helping organisations to save time and meet their various requirements including data backup. We have a very strong business presence in the country as more than 750 customers in the country are already using our products.

In the BFSI sector, we are already working with some of the largest banks including the State Bank of India, ICICI Bank, Kotak Mahindra Bank, IndusInd Bank, Federal Bank, South India Bank, etc. Backup is indeed a crucial issue for banking sector, and we are proud that these banks believed in our products and we are keeping the faith intact.

#### You have collaborated with some of the leading IT vendors as well. Will you elaborate on this?

In the world of technology, if you want to be successful, you need to collaborate with different companies. We work with several partners very closely and make efforts to co-develop backup solutions for our clients. DellEMC, HP, Microsoft, CISCO, etc are some of the organisation

we work closely with. We believe in partnership as it strengthens the entire ecosystem to benefit the customers.

#### What is the market share of Veeam Software in India? How did you expand your operations in the country?

Our market share is in the range of 18 to 20 per cent, and it is increasing every quarter. We have recently been able to acquire new customers in the BFSI domain. At the time when we started our operations, we focused on SME sector, later – we expanded our team and started focusing on acquiring clients in BFSI vertical. Now, we are proud to say that we have a dedicated team that focuses our operations in BFSI vertical. Globally, in the BFSI domain, our market share is about 30 per cent.

Being a new entrant in the market, we could acquire customers at a rapid speed, and we are hopeful that we will soon become a first choice for backup solutions in the BFSI domain.

#### How crucial is the issue of backup for banks? Please shed some light on this aspect.

Today, the way banks do business has changed completely. People do not go to physical banks for regular banking operations and instead, use their smart phones and other devices for the same. It has become very important for banks to keep their applications up and running all the time.

Any downtime can have a major impact on the reliability and banks simply can't afford to dent customers' confidence. Here, availability becomes a major key factor for the technology team of the banks. Issues such as possibility of ransomware attacks have further highlighted the need to have proper backup system within the banks.

Proper data back ultimately help banks to offer excellent experience to their customers. Banks, nowadays, are also hiring data mining experts. The significance of data can be judged with the fact that by 2025, we expect to generate 180 terra byte of data which is huge. About \$2.1 trillion is going to be spent on data and data security services.

#### Tell us about your Availability Platform for the Hybrid Cloud. What are its capabilities?

We do have Availability Platform for Cloud that can help businesses of all sizes to ensure availability for virtual, physical, and cloud-based workloads through the various capabilities including enterprise continuity, cloud data management and compliance and visibility.

#### How do you rate the competition for Veeam Software in the Indian market?

The competition is tough. We have few companies

in India which have been working here and around the globe for the last 20 years. They have significant presence and are already serving customers across industry for long. Veeam, however, has been able to acquire clients at a rapid speed and bring advanced and reliable technology to its partners. This is the reason we have been able to grow remarkably in the presence of several other competitors. Further, we have also ensured that we serve our existing customers in the best possible manner. Thanks to our support team spread across the country.

#### You majorly focused on offering your backup solutions for virtualisation environment. Isn't it?

Yes. We started off by offering backup solutions for the virtualisation environment, whereas our competitors focused on both – virtualisation as well as physical environment. We didn't focus on physical part as about 85 per cent companies today worked in virtual environment



Veeam Software has been able to acquire clients at a rapid speed and bring advanced and reliable technology to its partners."

and only 15 per cent worked in physical environment. We tied up leading virtualisation vendors and developed strong backup expertise in the domain. Very recently, we have started serving clients in the physical environment as well.

#### How tough is to get the new customers? What are the typical challenges that you face?

Customers today have become very smart. They don't care if the solution provider is a 100-year-old organisation or a startup, what they want is a solutions that can meet their requirement to the tee with complete security and safety. And, if they like your product, they will want you to keep the price reasonable. All these elements put pressure on a solutions provider and encourage it to offer solutions which are just perfect. In fact, the increasing customer awareness is helping companies develop stronger and safer products.

#### How affordable are your solutions for cooperative banks?

Our solutions for cooperative banks are typically small in size and it it mean for those who cannot afford the entire package. We can proudly claim that we are one of the finest backup provider companies worldwide and we are very optimistic about our growth in the country. We are assuming 100 per cent growth by next year.

#### Industry Perspective K. RAMACHANDRAN



# INDIAN BANKS' ASSOCIATION Leading Banking to Technology Innovations

The banking industry in India has witnessed a major transformation due to technological advancements. Indian banks can proudly claim that they are on the fore-front in using the technology in the banking services, much ahead of most of the banks in developed countries and the level of innovation will grow even higher in future, says **K. Ramachandran**, Senior Advisor (Banking Technology), Indian Banks' Association, in conversation with **Harshal Yaswant Desai** of **Elets News Network (ENN).** 

ow do you rate the current technology standards followed by the Indian banks? Are we at par with international standards? The banks in India, in the last decade, adopted the latest technologies and implemented core-banking solutions to serve the customers at the bank premises, converting a branch customer to a bank customer across all branches, enabling anywhere banking. Based on the strong Core Banking System (CBS) platform, they built interfaces to

alternate channels like ATMs, Internet Banking, Mobile banking, Mobile wallets, Physical POS terminals, Digital PoS, Micro ATMs, Aadhaar-based payments etc.

The Reserve Bank of India (RBI) ushered in RTGS (Real Time Gross Settlement) and NEFT (National Electronic Funds Transfer) and Cheque Truncation System (CTS) to speed up the payment systems. The National Financial Switch (NFS) of National Payments Corporation of India (NPCI) connected all the ATMs and

enabled inter-operability of ATM services across banks. Then, NPCI introduced Immediate Payment Service (IMPS), a real-time payment system, best of its kind in the world, which could move funds from one bank account to another in real time.

Indian banks can proudly claim that they are at the forefront in using technology in banking services, much ahead of most banks in developed countries. They will continue to adopt new technologies to provide more banking services and delight the customers in the years to come.

#### Is demonetisation, responsible for increasing digital initiatives to some extent?

The demonetisation announced by the Central Government on November 8, 2016 has given a boost to the adoption of digital banking and payments. Last six months have seen the growth of innovative products in digital applications like Unified Payment Interface (UPI), BHIM, BHARAT QR and BHIM Aadhaar. These applications are handling millions of transactions every day.

#### How does IBA help banks in staying ahead in terms of technology adoption?

The Indian Banks' Association (IBA) has been helping the banks in keeping abreast of latest technologies through workshops, seminars and meetings with support from IT vendors. It assists in banks to arrive at common standards for hardware and software, where applicable, keeping the interests of banking industry and all other stake holders. BHARAT QR is the first collaborative exercise in the world bringing together the four major card network operators American Express, Master, Rupay, VISA and all the Indian banks, which involved setting up a Uniform Payment Interface (UPI), standard QR code for the scanned payments Application (digital POS), improving the convenience of the merchants and customers.

#### What role is Aadhaar playing in the banking sector? Kindly elaborate.

The introduction of Aadhaar card and Aadhaar authentication through UIDAI has been a game changer in the Indian banking technology in the last one year. The E-KYC has made it easy for the customer and banks to open accounts, meeting the KYC requirements. The Aadhaar authentication has brought in a new payment system – AEPS and subsequently the BHIM Aadhaar – a digital POS system, which only requires a smart phone with a biometric device for the merchant and does not require even a phone from the customer. This increases the reach of digital payments to the masses.

While Aadhaar has enabled the Direct Benefit Tranfer system helping the government to save



Indian Bank Association (IBA) has been helping the banks in keeping abreast of latest technologies through workshops, seminars and meetings with support from IT vendors."

thousands of crores by plugging loopholes and eliminate subsidies in welfare schemes, the new notification under PMLA requiring all accounts to be linked with Aadhaar will further strengthen the Government of India in its drive against black money. The increased use of Aadhaar authentication will help the banks in improving operational risk management in opening of accounts and transaction payments.

#### Tell us about your initiave named Digi-locker.

The projects like Digi-locker will help banks in verification of documents and assets. For example date of birth, educational qualifications, driving licence, motor vehicle ownership etc. can be verified from the source/issuers. The digitisation of land and other property records will improve the credit risk management.

Banks will use more of Analytics – descriptive, predictive, prescriptive, cognitive analytics and Big-Data for fraud monitoring, cross-selling, up-selling, credit scoring, focussed marketing, customer surveys, feedback through social media etc.

#### What are your views on technological advancements like Artificial Intelligence and blockchain?

Artificial Intelligence will be used for optimising software development, chatbots to respond to customer queries, pattern recognition for generating alerts, early warning signals for asset slippage, investment advisory and so on. Some banks have already introduced walking Robots at branches to receive and answer FAQs from customers. Block chain is another area banks are looking forward to. But the implementation of real projects seems to be delayed. Cyber Security is one challenge banks have to face on an ongoing basis.

#### Will online banking do away with physical banks in future?

Physical bank branches will not disappear. Digital banking will work along with physical branches, as customers still perceive and trust the humans more than machines, for all counselling and advisory work in areas like housing loans, corporate loans, investments, foreign trade and forex transactions.

#### Industry Perspective SHIV KUMAR BHASIN



## SBI UNLEASHING THE DIGITAL JOURNEY IN BANKING

The State Bank of India (SBI) geared up its digital journey for enhanced customer experience nearly three years ago. The bank ensures 24x7 availability and performance of applications. It has been aggressively working towards strengthening infrastructure stability for years, says **Shiv Kumar Bhasin**, Chief Technology Officer, SBI, in conversation with **Harshal Yashwant Desai** of **Elets News Network (ENN)**.

within SBI?
We have done several improvements to streamline the IT operations. In order to enhance the staff productivity and efficiency, we have launched Office365 across the organisation which allowed us to add collaboration tools such as "Group." Team, Skype, SharePoint, etc to help employees collaborate and share documents across the teams and groups in different branches.

ow did you streamline the IT operations

These tools are available on five devices per employee to enable them work from anywhere. We launched BYOD or Bring Your Own Device campaign which further helps us increase the efficiency of employees, as it allows them to work from anywhere.

A real-time 24x7 applications and infrastructure monitoring operations centre is built which monitors applications end-to-end from channels to backend. It ensures 24x7 availability and performance of applications.

We began our digitisation journey about three years ago to enhance the customer experience. We launched four SBI INTOUCH branches and we have about 800 such branches across the country today. Our 'SBI Buddy' is being subscribed by about 16 million people in the country as a P2P instrument. Post-demonetisation various P2P payments mode – UPI, Aadhaar-based merchant payments, etc. were launched.

Significant branch digitisation has been carried out by digi voucher mobile app (which replaces paper vouchers). Core banking system is digitised to make it ready for digital echo system to have micro services and APIs, and enhanced teller application to fulfil digital services to branch customers and reducing the branch queues.

We are also about to launch SBI Digital Bank which will allow people to perform regular banking operations from customer acquisition to fulfilment without visiting the physical branches.

This will allow us to address customers' needs more proactively through omni-channel application, with deep machine learning analytics and cognitive technologies.

## How are you influencing the existing customer base to be a part of the bank's digital innovations?

We have made intra-operability as a key requirement, which will allow brick-mortar customers as well to subscribe the offerings of digital bank. SBI is providing both the choices to customers – if they want, they can visit the branch or they can avail the services online digitally. Hopefully, in the current quarter, we would be able to launch the digital bank.

### Tell us about your core banking operations?

We have enhanced our core banking systems as well. For example, if a customer walks into the banks to avail loan, he can get digital advice as core banking business processes have been digitised where tellers can complete the formalities through four to five screens.

Further, based on Artificial Intelligence (AI) and big data tools, we have introduced chatbots for the tellers in the branches. Al allows us to understand customer portfolio 360 degree as soon as he walks in. We launched dig voucher where no paper is required for withdrawal or deposit. This voucher can be submitted even before entering a branch.

We have also launched an appointment tool which allows people to seek appointment in terms of virtual token. Customers, through this application, can know the exact time to visit the branch.

## Kindly tell us about your training module.

There are various levels of trainings that we follow. We first train the trainers and record the videos. These lessons are imparted to the staff by leveraging advanced digital channels.

## How have you been able to reduce the downtime?

We have been aggressively working towards



SBI began our digitisation journey about three years ago, we launched four SBI INTOUCH branches and we have about 800 such branches across the country."

strengthening infrastructure stability for years. We have been working tirelessly to ensure high availability, right level of resilience and right levels of SLAs implemented across data centres and every business application based on its business criticality.

We have deployed advanced monitoring tools which are generating half a million events per minute, and the application is being monitored from the command centre.

Further, we are using advanced cloud technologies, hardware and software to ensure our services are up to the mark.

## What are your views on Blockchain technologies?

I am pretty sure that these technologies will drive the banking sector in near future. We are going to implement Blockchain for trade finance and payments, build ecosystem by developing a consortium of Indian Banks and wish to make the most of this technology. We have implemented Blockchain for few use cases of foreign remittances within SBI group.

## You have been inspiration to many professionals working in public sector banks, what keeps you motivated?

It is our determination to see SBI in the top 10 banks in the world. If our services can help Indian citizens and make their lives simple and easier, it will be a great job satisfaction.

Our chairman has been very digital savvy to make customers' lives simpler by technology. She has been one of the key flag-bearers for digitising the various banking processes.

Further, I am fortunate to have Mrutyunjay Mahapatra, Deputy Managing Director and CIO, who is very tech savvy. He is one of the most people-oriented leaders. He always encourages us to go for cutting edge technologies and encourages us to setup innovation centre within the bank. We are investing in blockchain, big data analytics, artificial intelligence, cognitive technologies, robotics, etc to improve the services for our customers. All this is becoming possible because of the support of top leadership team.



V K Sudhakar, Cheif Executive Officer, D2K Technology Pvt Ltd

## CRISMAC PROVIDING Sysytem Driven Software Solution

"CRisMac" is the brand under which D2K Technologies India Pvt Ltd. is developing and marketing various system-driven software solutions for the Banking and Finance Sector. Leveraging contemporary technology and blending it with its core competency of banking domain, the company is addressing the requirements of MIS reporting, Asset Classification, Early Warning System, Analytics & Dashboards, Management of Impaired Assets, Credit Monitoring, MSME Appraisal & Rural Credit Delivery through its assortment of products and systems.

elving into challenges of the future, as outlined by the Market Intelligence Trend 2020 Survey, the company is addressing the triumvirate of Data Collection Automation, Information Collection Automation & Cross Functional Integration for its systems and processes. The company incorporates in its software concepts like Big Data Analytics, Artificial Intelligence & Predictive Analytics, Web Crawling, for addressing requirements of data collation, information integration and cross functional amalgamation. Having a client base encompassing large Public Sector Banks and new-age Private Sector Banks, the company is poised for an exponential growth among the comity of providers of banking services in India.



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The company headquarters is in Thrissur, Kerala and they are having offices in Mumbai and Chennai. The service centers are in Thrissur, Chennai, Bangalore, Vijayawada, Kolkata, Mumbai and New Delhi.

Ashlyn group has proudly completed 6000 installations of Gold purity testing machines in India, Middle East and Africa. The company has relationship with major Nationalized and Private sector banks in India. An extensive service network comprising site service engineers stationed in strategic locations has been the cornerstone of the organization's success. This reputation for after sales service has helped the Ashlyn Group to evolve and to be in close association with almost all the known banks throughout the country.

The Company's mission is to provide its customers with excellence in quality, unrivaled service at an affordable price.





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## **GENIE IN THE LAMP**

## Perspective of Encore Theme on Blockchain

-To Rub or not to Rub?

lockchain is touted to be the proverbial Genie in the Lamp – a thing of wonder that has magical capabilities. The excitement surrounding Blockchain is there for all to see. The FINTECH industry is abuzz with frenetic activity and it has turned Blockchain from just a buzz word to almost a cacophony.

Some of the companies that are either adopting, or even developing solutions using Blockchain are consulting the industry experts to define how to implement it. An exercise that is intended to inherit privacy and security structures of legacy systems, has inevitably resulted in faults and inefficiencies. Many such efforts by companies to build 'consortiums' have neither been constructive nor have produced game changing products.

Many are jumping onto the bandwagon, some for the right reasons – to align themselves to a new order that might emerge, but several others are doing it with the fear of being left behind. What is required today, however, is a revolutionary way of re-thinking the fundamentals of trade.

By proactively questioning every activity and validating its relevance in context of technological developments. We can create amalgamated products that truly serve users.

As the Blockchain technology has been developed

from scratch, the applications it is dealing with must also follow the similar frame of developed. True solutions will come only from those who are at arm's length from the industry. People who know the needs and are not yet entrenched in the bureaucracy.

## Before we jump on to the bandwagon, we must understand technical definitions of the beast; Blockchain.

- It is a ground-up technological breakthrough developed through research and application and not an industry defined solution: Research and development of this technology should continue to be ground-up instead of industry (ies) defining the parameters of technology development, hence, the move by IBM to entrust the Linux foundation to co-ordinate and standardise opensource code that will be the Hyperledger Project is the most appropriate move to unleash true potential of Blockchain.
- Blockchain is not one, but a combination of at least four existing technologies to create a unique combination that has created a system that is accessible, opensourced, transparent, robust, secure, and trust

worthy, designed purely for the digital world. We believe that one has to preserve every characteristic of Blockchain as envisaged by the original developers to truly leverage its benefits.

- It is an organic system, exact opposite of a hierarchical model . For example, Bitcoin is built on the paradigm of Social Infrastructure, Social Cost, and Social Profits. Whereas legacy systems are built on Private Infrastructure, Private cost and Privatised Profits. While it is apparent, a truly social application is not tenable to the industry, the arrival of such a socialised system is a gamechanger and even implementing aspects of it will be revolutionary.
- By nature, Blockchain is a distributed database with identical copies of the ledger synchronised and updated with consensus and it does not contain a centralised decision making organisation.
- By being an immutable ledger of all events, it enables to digitally transact and maintain a full record of the transfer of value.

Having seen the characteristics of a Blockchain, it is worth looking at the challenges faced by the FINTECH industry as a whole. An industry that employs a legacy system adopted and incrementally evolved from its roots in the medieval ages, that has inherited every problem of physical banking.

- ♦ Hub & Spoke Model that limits access & interoperability
- Trust Deficit based Multiple Validation & Intermediaries, hence grossly inefficient
- Hierarchical decision making resulting in Time delay in settlements
- Centralised record Keeping, hence costly to maintain with redundancies while being vulnerable to service failures and attacks
- Maze of Regulations and difficulty to comply with statutory obligations
- Lack of Transparency

In short, it is an industry that is ready for disruption.

While everyone agrees that Blockchain is 'that disruptive technology', it will also do us good to understand how disruption happens.

Every innovation or every new technology has the potential to be a disruptor, if, the right company builds products that leverage the technology to change legacy structures to reduce cost (to almost Zero); improve efficiency; reduce middlemen (Direct to consumers); increase transparency; build trust and social validation; empowering users by providing open access.

Examples of which can be seen how, Skype disrupted Telecom (Telephone) more than Mobile Technology. Twitter, Facebook and YouTube disrupted the news industry more than the internet.

Amazon and Alibaba disrupted the Retail Marketplace (Hub & spoke model) by changing the volume game to value and access driven.

Given this scenario, Encore Theme Technologies (ETT) has embarked upon a journey and has set itself on a path to build Ground up solutions for the FINTECH Industry on Blockchain.

## Encore Theme has a set of policies underpinning our design and development of Blockchain solutions.

- Enable everyone in the ecosystem to adopt / subscribe to the technology.
- Build end-to-end automation and minimise human interventions.
- Eliminating physical movement of documents.
- SMART handling of regulations and compliance.
- Seamless co-ordination and updation.
- Always updated Transaction status dashboards.
- Enabling Data-science driven Financial Services.

With our expertise in providing solutions to the industry for over a decade, Encore Theme is currently developing and/or implementing solutions for the Trade Finance ecosystem, Supply Chain Finance ecosystem & marketplace, Home Finance marketplace & management. Each solution is capable of being configured to run alone or be integrated with existing systems for each participant.

Solutions for Trade Finance ecosystem are being developed under the Name "ThemeChain" an end-to-end cross-border trade solution, with over 11 participants being included in the ecosystem. It includes the Importer, Issuing Bank, Advisory Bank, Exporter, Central banks, Shipping Agents, Customs on either side & Insurance Agents. The solution is designed to be deployed and adopted by the whole ecosystem and will be fully KYC and AML compliant, with validation powers and transparency for regulators. It is designed to minimise human intervention, and aims to reduce what is traditionally a 12-stage process to a 3- stage process with the implementation of smart contracts.

ThemeChain is optimistic in its strategy to onboard all participants, being confident on the utility and benefits it provides to each participant.

Overall, we are sure, that the Genie in the Lamp - that is 'Blockchain' is well within its potential of transforming this world, and the industry is today at a cusp... to rub or not to rub.

(The author is V.R. Raguraman, Block Chain Practise Specialist. For details: www.encoretheme.com or Sales@encoretheme.com)

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## **e**lets DIGITAL BANKING &PAYMENTS

Vivanta by Taj-President Mumbai



Dr Ravi Gupta, CEO and Editor-in-Chief, Elets Technomedia Pvt Ltd, and Dhiraj Nayyar of NITI Aayog with the awardees at the "Elets Digital Banking & Payments Conclave" held in Mumbai.

## **Exploring Various Facets of Digital Banking in India**

India is transforming in alignment with the digital revolution initiated by Prime Minister Narendra Modi. The banking and finance segment, in particular, is going through a paradigm shift with some of the most remarkable next-gen initiatives.

The government has highlighted Financial Inclusion as one of its top priorities since taking the reins at the Centre, by launching Pradhan Mantri Jan Dhan Yojna (PMJDY) to ensure a bank account for everyone.

In sync with this, the Indian banking sector has come up with several initiatives of smart and easy ways of banking. In this light, Elets Technomedia Pvt Ltd recently organised "Digital Banking and Payments Conclave" in Mumbai on 18<sup>th</sup> May, 2017 at Vivanta by Taj - President.

This summit explored and discussed various practices and initiatives introduced by the Banking, Financial Services and Insurance (BFSI) segment for promoting the usage of Digital Payments in India.

The summit was inaugurated by Secretary, Department of Cooperation, Goa, Padma Jaiswal; Officer on Special Duty and Head, Economics, Finance and Commerce, NITI Aayog, Government of India, Dhiraj Nayyar; Assistant Director General, UIDAI, Government of India, Sumnesh Joshi; and Senior Advisor-Banking Technology, Indian Banks' Association, K Ramachandran.

## INAUGURAL SESSION: DIGITAL BANKING-STEERING INDIA TOWARDS A CASHLESS ECONOMY



Panelists from (Left to Right): K. Ramachandran, Senior Advisor – Banking Technology, Indian Banks' Association; Sumnesh Joshi, Assistant Director General, UIDAI, Government of India; Padma Jaiswal, Secretary, Department of Cooperation, Government of Goa; Dhiraj Nayyar, Officer on Special Duty & Head, Economics, Finance & Commerce, NITI Aayog, Government of India and Dr Ravi Gupta, CEO and Editor-in-Chief, Elets Technomedia Pvt Ltd during the inaugural session of "Elets Digital Banking & Payments Conclave".

Digitisation is playing a pivotal role in upgrading the society and promoting social and financial inclusions. Banks, in particular, are the ones among the most influential modes that can help in bringing the underprivileged to the mainstream. Reaching the unbaked populace in the remote rural region has also been an arduous task for the banks. With the rising acceptance towards digitisation, a new era of banking has been instigated.



PADMA JAISWAL Secretary, Department of Cooperation, Government of Goa

Aadhaar is one of the pillars of "Digital India" initiative. E-payments segment, in particular, is witnessing a lot of Aadhaar synced features. Earlier, acceptance towards all sorts of digital payments was low. But, post-demonetisation, the scenarion is changing. People are now well-versed with digital payments.



**SUMNESH JOSHI** Assistant Director General, UIDAI, Government of India

Demonetisation has acted as a catalyst towards initiating a paradigm shift in the Indian banking sector. It is quite satisfying to see that majority of the stakeholders in the domain are seriously working towards digital upgradation. The note ban of high denomination currency indeed initiated the change. But the base of the digital revolution in the banking segment was already functional in the background.



**DHIRAJ NAYYAR** Officer on Special Duty and Head, Economics, Finance and Commerce, NITI Aayog, Government of India

In the last three years, there has been a tremendous change in the banking sector, especially due to the push given by the Central Government. Initiatives like Pradhan Mantri Jan-Dhan Yojana (PMJDY), Jan Dhan, Aadhaar, and Mobile (JAM) gave rise to the new era of digital banking in India.



K RAMACHANDRAN Senior Advisor-Banking Technology, Indian Banks' Association

## **Conclave Report**

# NOLOGY SENTATION:

Today, the bank is in my palms. Everything is transforming rapidly in sync with digitisation. The younger generation is far more better than us in handling and using technology. This proves that the next generation would be far more technologydriven and demanding on the Banking Financial Services and Insurance (BFSI) is going to rise like never before.



**PRAKASH SHETTY** Senior Account Manager, RedHat

It is the location that pays the pivotal role as far as banking services are concerned. Be it rural banking or boosting the financial inclusion, having an idea about the right location is the necessary quotient. When we talk about digitising the banking sector there lies a huge gap in terms of digitising the location. It has not been made yet the integral part of the entire core banking system yet.

According to a study by a research firm, every nine out of 10 new internet users in future would be local language consumers. We, as a language-based technology provider, see this as an opportunity. But it is also an important indicator for the BFSI sector that for financial inclusion, enabling technology in sync with local languages is very important.



RAJEEVLOCHAN PHADKE President & CTO, Fidel Softech

**HEMANG CHOUDHARY** 

Head BFSI, MapmyIndia

# PANEL DISCUSSION: TECHNOLOGIES AND THEIR APPLICATIONS IN DIGITAL BANKING AND MOBILE PAYMENTS



Panelists from (Left to Right): Subrata Gupta, Chief General Manager – IT, NABARD;Sanjay Padmakar Narkar, Chief Technology Officer, IDFC Bank;Rajnish Khare, Head – Digital Transformation, Social Business & New Media and Mobility Banking, HDFC Bank;Prasannna Lohar, Head, Innovation and Architecture, DCB Bank; Malhar Anaokar, Principal Solution Architect, RedHat India / SAARC and Ashwin Shenoy, Regional Head – West, Manipal Technologies during a panel discussion on "Technologies And Their Applications In Digital Banking and Mobile Payments".

## **Conclave Report**

Technology has moved very fast over the last few years and movement with respect to the type of steps that are being taken by the government to push financial inclusion and digital banking has been really fast lately. The innovations made in banking sector in the last few months have been very rapid and abiding to it for the bankers waś very strenuous. But we are glad that the outcome of all those initiatives are pointing towards a bright future.

IDFC Bank took birth in the digital era. We have started our operations and the major challenge for us is to maintain balance between digital innovation and customer satisfaction. Before the initiation of our services we conducted a study which suggested that customer ease is far more important than any other service. This is the major takeaway of banking in the present scenario. Banking should be digitally advanced in sync with customer satisfaction.



**SUBRATA GUPTA** Chief General Manager-IT, NABARD



SANJAY PADMAKAR NARKAR Chief Technology Officer, IDFC Bank



Felicitated dignitaries (From Left to Right): Sanjay Padmakar Narkar, Chief Technology Officer, IDFC Bank; Subrata Gupta, Chief General Manager – IT, NABARD; Rajnish Khare, Head – Digital Transformation, Social Business & New Media and Mobility Banking, HDFC Bank; Ashwin Shenoy, Regional Head – West, Manipal Technologies, Prasannna Lohar, Head, Innovation and Architecture, DCB Bank and Malhar Anaokar, Principal Solution Architect, RedHat India / SAARC at "Elets Digital Banking & Payments Conclave".

Digital is actually disrupting the way businesses are being done. It is giving scope for new opportunities, markets and challenges. Today, most of the top performing brands are digitally advanced. The digital transformation started a decade ago and it got accelerated in 2014. It is still gathering momentum. Several key themse (187) at a like Plack chair Internet of Things (187) at a Ĭike Blockchain,Internet of Things (IoT) etc are fueling the digital revolution in the banking domain.



**RAJNISH KHARE** Head - Digital Transformation, Social Business & New Media and Mobility Banking, HDFC Bank

The biggest trend that we see with regard to technology advancement is data analytics, especially considering the number of data sources and the huge amount the information coming from different channels on consumer behaviour. Data analytics is one area that is going to see some significant amount of growth.



MALHAR ANAOKAR Principal Solution Architect, RedHat India / SAARC

DCB Bank has a legacy of 85 years and our journey to digital transformation started in 2014. We concentrated on several pillars before considering our strategies like internal workforce in sync with customers, the existing process in 2014 and the technologies available in the market for banking domain and the way ahead.



RASANNNA LOHAR, Head Innovation & Architecture, DCB Bank

Taking this technology to customer and ensuring that customer is aware of the services is the most important thing. Several services like micro ATMs, Aadhaar linking etc have actually helped in penetrating banking services to the rural region, and thus boosting financial inclusion. We began our business correspondent services in 2010-2011 and today we are present across 700 points.



**ASHWIN SHENOY** Regional Head - West, Manipal **Technologies** 

WORLD

## PANEL DISCUSSION: FRAUD AND RISK MANAGEMENT IN DIGITISED



Panelists from (Left to Right): S.V Sunder Krishnan, Chief Risk Officer, Reliance Nippon Life Insurance Company Limited; Shashank Shekhar, Head – IT Infrastructure & Digital, DCB Bank; Shivkumar Pandey, Chief Information Security Officer, Bombay Stock Exchange; A Shiju Rawther, Head Information Technology Infrastructure & Security Operations, Credit Information Bureau (India) Limited; Gopakumar Panicker, Chief Information Security Officer, Aditya Birla Financial Services and Butchi Babu Burra, IT-Advisor, Bank of India during a panel discussion on "Fraud and Risk Management in Digitised World".

The attackers target organisation on the basis of availability and criticality. At BSE, we have deployed several kind of technology to safeguard our systems from malware attacks. But despite all collaborate at the technological front. Instead of reactive approach, we should adopt a proactive approach. It is all about that were targeted at your organisation.



SHIVKUMAR PANDEY Chief Information Security Officer, **Bombay Stock Exchange** 

Risk and fraud are part of the same coin. While risk is moreover a process, fraud is an outcome directly proportionate to this. From technological perspective, every organisation takes a lot of measures to handle both the side of the coin. Today, 80 per cent of the population exercise for risk mitigation of their health. But when we talk level among the masses go down.



A SHIJU RAWTHER **Head Information Technology** Infrastructure & Security Operations, Credit Information Bureau (India) Limited

We have a lot of monitoring tools but we hardly take a look at all of them. In general practices, we avoid using protective measures. For example, we have more than 70 plus cameras in our data centre but we generally use them for forensic purposes and not for regular monitoring usage. Earlier, everything followed are process but now services a launched haphazardly as a result the scope for loopeholes remain.



IT-Advisor, Bank of India

The corporate are going through digital transformation. All the institutions are willing to get digitised. When digitisation was being spoken about a few years ago, there were several accusations surrounding it. That is what digital revolution is all about. In this era of digital payments, the risk of malware is very high.



S V SUNDER KRISHNAN Chief Risk Officer, Reliance Nippon Life **Insurance Company Limited** 

## **Conclave Report**

Earlier, youngsters in their 20s used to do hacking for fun and adventure. But now, the scenario is changing. Almost 80 per cent of the hackers are part of the digital syndicates. These formally formed syndicates are operating across the globe in a syncronised manner to exploit the technology and make an advantage out of it and compromise the risk in the digital world.



SHASHANK SHEKHAR Head - IT Infrastructure & Digital, DCB Bank

Awareness about fraud is a very important aspect. Lately, fraud is offered as a professional service where experts in the domain are performing it with a lot of finesse. No amateurs are performing it now. Cracking the protected code like fingerprint security and others are happening in sync internationally.

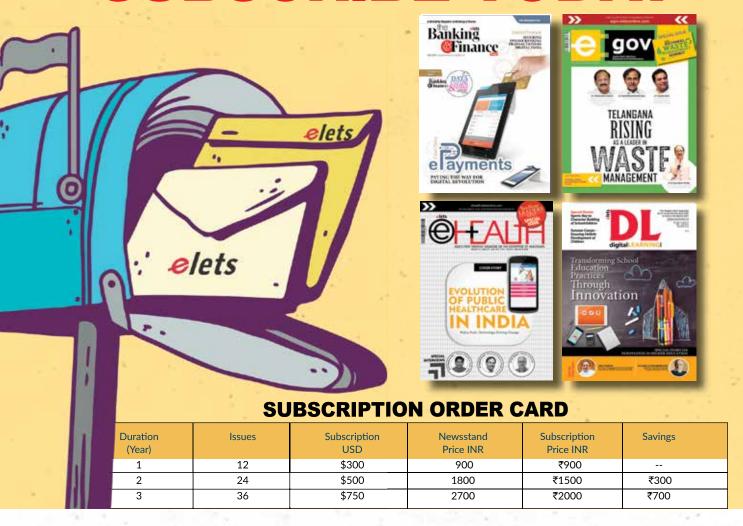


GOPAKUMAR PANICKER
Chief Information Security Officer, Aditya Birla
Financial Services



Felicitated from (Left to Right): S.V Sunder Krishnan, Chief Risk Officer, Reliance Nippon Life Insurance Company Limited; Shashank Shekhar, Head – IT Infrastructure & Digital, DCB Bank; Shivkumar Pandey, Chief Information Security Officer, Bombay Stock Exchange; A Shiju Rawther, Head Information Technology Infrastructure & Security Operations, Credit Information Bureau (India) Limited; Butchi Babu Burra, IT-Advisor, Bank of India and Gopakumar Panicker, Chief Information Security Officer, Aditya Birla Financial Services of at "Elets Digital Banking & Payments Conclave".

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## SPECIAL ADDRESS: ROLE OF DIGITAL BANKING IN FINANCIAL INCLUSION

When we speak about financial inclusion there are two aspects to it namely initiative and innovation. These two aspects came into limelight when the present government starts rejuvenating the idea of financial inclusion, though it is a decadal old concept. The concept of 'Make in India' started driving people from the concept of poverty towards financial inclusion.



P C PANIGRAHI
General Manager-FI, Union Bank of India



## **EVENT LANDSCAPE**

2017

JULY

2<sup>nd</sup> BFSI CTO Summit

27 JULY 2017 VIVANTA BY TAJ-PRESIDENT MUMBAI OCTOBER

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**DECEMBER** 

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FEBRUARY

3<sup>rd</sup> BFSI Leadership Summit

**MUMBAI** 

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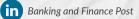


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# PANEL DISCUSSION: POSTDEMONETISATION: IMPACT ON MOBILE BANKING/ WALLETS AND THE ROAD AHEAD



Panelists from (Left to Right): PC Panigrahi, General Manager – FI, Union Bank of India; Lalit Popli, Head – IT, ICICI Prudential Asset Management; KV Dipu, President and Head of Operations, Bajaj Allianz General Insurance and Suresh A Shan, Head Innovation & Future Technology, Mahindra & Mahindra Financial Services during panel discussion on "Post- Demonetisation: Impact on Mobile Banking/Wallets and The Road Ahead".

Before mobile came, currency was one component that had the maximum reach. Denometisation forced everyone to take out their hidden money. The government tried to control it by setting up a withdrawal limit. As a result of this, people started using mobile for making payments. Many telecom players emerged during this period. In sync with this, the government launched BHIM and UPI. A new way of payments have come out postdemonetisdation.



**LALIT POPLI** Head - IT, ICICI Prudential Asset Management

Our services are more into the rural parts of the country. We are still trying our level-best to reach complete digitisation. But we are yet to reach 80 per cent as Indian popúlation believes more in cash period, the digital payments picked but post the drive cash is still coming into picture.

**SURESH A SHAN** Head Innovation & Future Technology, Mahindra & Mahindra Financial Services

Demonetisation did not have a greater impact on the insurance sector in terms of volumes in the industry as it continued to grow. Most of the customers earlier used to pay by cheque and now they opt for digital payments. All these innovations will definitely help the payments in the insurance sector. For example, if a traveller wants to buy a travel insurance at the airport, he can instantly do it on just one click.



K V DIPU President and Head of Operations, Bajaj Allianz General Insurance



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## **ABOUT SIFY TECHNOLOGIES LIMITED**

Sify is among the largest integrated ICT Solutions and Services companies in India, offering end-to-end solutions with a comprehensive range of products delivered over a common telecom data network infrastructure reaching more than 1400 cities and towns in India. This telecom network today connects 43 Data Centers across India including Sifyís 6 Tier III Data Centers across the cities of Chennai, Mumbai, Delhi and Bengaluru.

A significant part of the companyís revenue is derived from Enterprise Services, comprising of Telecom services, Data Center services, Cloud and Managed services, Applications Integration services and Technology & Integration services. Sify also provides services that cater to the burgeoning demands of the SMB community, much of it on its Cloud services platform.

Sify has a unified licence to operate NLD (National Long Distance), ILD (International Long Distance) services and ISP services and offers VoIP backhaul for international carriers. With the Sify Cable landing station and partnerships with submarine cable companies globally, Sify is present in almost all the spheres of the ICT eco system.

Sify has an expanding base of Managed Services customers, both in India and overseas, and is Indiaís first enterprise managed services provider to launch a Security Operations Center (SOC) to deliver managed security services. The software team develops applications and offers services to improve business efficiencies of its current and prospective client bases. Sify also offers services in the specialized domains of eLearning, both in India and globally. For more information about Sify, visit www.sifytechnologies.com



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