Vol. 26 Issue-2 Quarterly Publication Sep 2017

Siblink

Next Generation

Corporate Family Magazine Of The South Indian Bank Ltd.

Fintech

SOUTH INDIAN Bank

Experience Next Generation Banking

Coimbatore region has always been unique in the historical pages of the milestones crossed by South Indian Bank. It always has the pride of being the first region formed outside Kerala on 21.07.1978 and is presently having fifty five branches and eighty six ATMs spread across varied geographical area covering over eight districts in Tamil Nadu. Rededication of RO premises by our MD & CEO Mr V.G. Mathew on 5th August, 2017

Siblink

Corporate Family Magazine of
South Indian Bank

Objectives:

To instil in the bank staff a sense of belonging and involvement in the bank's affairs
To appreciate and applaud the individual achievements of our members of staff
To act as a communication medium between management and the staff
To increase the professional competence of our bank staff

Inside

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SIB Mahila Achievers Day awardees Kalaripayattu veteran Padmashree Meenakshi Gurukkal, Ace athlete Padmashree Anju Bobby George and Playback singer Smt. Sujatha Mohan along with MD and CEO Sri. V.G. Mathew & Padmashree Bharat Mammootty.

Siblink Team Wishes a Happy & Prosperous New year

Mr. Reghunathan K N, Executive Vice President (Treasury) receiving the Award in the category - Best Private Sector Bank - Priority Sector Lending (Agriculture) from Mr. Harun Rashid Khan, Former Deputy Governor, Reserve Bank of India. Mr. Manish Sinha, Managing Director, Dun & Bradstreet India is also seen. India's Top Bank's & Banking Awards 2017 was conducted by Dun & Bradstreet.

Mr. John Thomas, our Sr. Gen. Manager - Business Development, delivering speech at the 26th Annual Management Convention of Thrissur Management Association. Mr. Nadir B. Godrej (MD, Godrej Industries), Mr. G Sreeram (MD & CEO, Dhanalaxmi Bank), Mr. K. Paul Thomas (MD & CEO, ESAF Small Finance Bank), Er. Christo George (CMD Hykon India & President, TMA), and Mr. V.P. Joseph (Former GM SIB & Past President TMA) are also seen.

MD & CEO Speaks ....

Technology and banking have a very close association. Technological developments are redefining the way the banks and financial institutions interact with their customers. The advent of banking products and services through internet, mobile phones, apps etc., paved the way for emergence of Fintech companies which today compete with banks using technological innovations in the areas of e-payments, online trading etc. Social media companies such as Facebook, Twitter and Google have a huge customer base and are already into the financial sector, making the banking scenario even more competitive.

The millennials have different expectations and appetite for banking and they would prefer to avail of banking services at their own comfort through online and social media platforms. This changing customer behavior has further spurred the growth of Fintech.

Fintech has brought significant disruptions in the way people bank, especially in areas of payments and credit. The future of banking depends on the ability of the conventional banks to stay relevant by providing robust, comfortable and competitive service proposition to the end users. A number of banks including us are already working with Fintech companies to adopt and operationalise their innovative ideas and concepts.

Collaboration is the key in this field where many Fintech companies, though rich in ideas and innovation, do not have a structured platform for deploying their innovations whereas Banks do have such platform, but are short on innovation.

The current issue of Siblink will discuss a number of these aspects in greater detail. I hope all of you will enjoy going through this volume.

With season's greetings and best wishes for a very happy New Year,

V G Mathew
Managing Director & CEO

“The future of banking depends on the ability of the conventional banks to stay relevant by providing robust, comfortable and competitive service proposition to the end users. A number of banks including us are already working with Fintech companies to adopt and operationalise their innovative ideas and concepts.”

"FIN-TECH" (Driver of a paradigm shift in the immediate future of banking sector)

"There's going to be more change in the financial services industry in the next 5 years than there's been in the last 30 years".

– Dan Schulman (Pay Pal CEO)

1. OVERVIEW AND CRUX

1.1 What is 'Fintech'??

Fintech is the short form of ***financial technology*** that describes an emerging financial service sector in the 21st century. Originally, the term was applied to the technology and back-end of established consumer and trade financial institutions. From the end of the first decade of the 21st century, the term has expanded to include any technological innovation in the financial sector, including innovations in financial literacy and education, retail banking, investment and even crypto-currencies.

Financial Technology, nowadays better known under the term '***fintech***', describes '***a business that aims at providing financial services by making use of software and modern technology***'. In the recent times, fintech companies directly compete with banks in most areas of the financial sector to sell financial services and solutions to customers. Mostly due to regulatory reasons and their internal structures, banks are struggling to compete with fintech startups in terms of innovation, precision and speed. Fintechs have realized early that financial services of all kinds – including money transfer, lending, investment, payments etc need to seamlessly integrate in the lives of the tech-savvy and sophisitcated customers of today to stay alive in this era where business and private life become increasingly digitalized. Especially millenials (people born between approx. the early 80s and late 90s) and the following generations prefer quick and easy banking services over walking down to a branch, appointments with bank consultants and time taking processes for meeting their banking requirements. On the contrary they prefer hassle free digital banking and ecommerce services, since the same allow for a more frictionless and stress-free platform.

Romita Chakraborty
Asst Manager
Br. Behala

1.2 Breaking down the term 'Fin-tech'

The term financial technology can apply to any innovation in how people transact business, from the invention of money to double-entry bookkeeping. From the time of revolution of internet and mobiles the financial technology has grown leaps and bounds, and fintech, which originally referred to computer technology applied to the back office of banks or trading firms, now describes a broad variety of technological services clubbed into personal and commercial finance.

The buzz around fintech has gained substantial attention of traditional financial institutions, startups, venture capitalists and regulators. Banks and regulators are forced to revisit their operating model and policies respectively to create a conducive environment of collaboration and dynamism amidst the participants in the fintech ecosystem.

The year 2015 was a formative year for the Indian fintech sector, that has witnessed the emergence of numerous fintech start-ups, incubators and investments from public and private investors. It was clearly reflected that a right mix of technical skills, capital investments, government policies, regulatory framework and entrepreneurial and innovative mind-set could be the driving force to establish fintech as a key enabler for financial services in India. Formation of a robust fintech ecosystem where start-up firms engage in external partnerships with financial institutions, universities and research institutions, technology experts and government agencies is expected to be a key driver for growth and innovation in the fintech sector.

1.3 Fintech's Expanding Horizons

Already technological innovation has uplifted 20th century ways of trading and banking. The mobile-only stock trading app Robinhood charges no fees for trades, and peer-to-peer lending sites like Prosper and Lending Club promise to reduce rates by opening up competition for loans to broad market forces. Technologies being designed that should reach fruition by 2020 include mobile banking, mobile trading on commodities exchanges, digital wallets (like **Apple** (AAPL) and **Google's** (GOOG) developing mobile wallet systems), financial advisory and robo-advisor sites like LearnVest and Betterment, and all-in-one money management tools like Mint and Level.

1.4 New Tech in Fintech

In the olden days, individuals and institutions used the invisible hand of the market – represented by the signaling function of price – to make financial decisions. New technologies, like machine learning, predictive behavioral analytics and data-driven marketing, will lead to the dropping of the guess work and hocus-pocus out of financial decisions. "Learning" apps will not only learn the habits of users, often hidden to themselves, but will engage users in learning games to make their automatic, unconscious spending and saving decisions better. On the back end, improved data analytics will help institutional clients further screen their investment decisions and open new opportunities for financial innovation.

1.5 Fintech Users

Who uses fintech??? There are four broad categories: 1) B2B for banks and 2) their

Fig 1: Sectors of 'Fintech'

business clients; and 3) B2C for small businesses and 4) consumers. Inclination of the present era towards mobile banking, increased information, data and more accurate analytics and decentralization of access will create avenues for all four groups to interact in heretofore unprecedented ways.

2. THE EVOLUTION OF FINTECH

Fintech – a contraction of "finance" and "technology" is the use of technology in the financial services industry resulting in the introduction of new and innovative products and services, primarily through software. At the same time however, Fintech disrupts and challenges the way conventional and traditional financial services and products are offered by granting access to untrodden markets through alternative services supported by technology.

Fintech has resulted in the emergence of alternative financing through peer-to-peer lending and merchant financing by electronic marketplace operators to merchants. Other Fintech advances include equity crowdfunding; digital currencies which operate independent of any central authority or banks; payment and remittance systems which bypass traditional banking channels; and the use of big data and analytics to maximise available customer data to further leverage on customer relationships.

2.1 Fintech from the 1950s to the Present

Fintech is a very diverse sector with a long history. Most people relate fintech only to the latest mobile app which can help them pay for their day to day expenses without even swiping a card or touching currency. But technology has always played a very vital role in the financial sector in ways that most people take for granted and might not ever see. In examining the timeline of fintech developments, the last 65 years present a picture of continued innovation and evolution.

The 1950s brought us credit cards to ease the burden of carrying cash. The 1960s brought ATMs to replace tellers and branches. In the 1970s, electronic stock trading began on exchange trading floors. The 1980s saw the rise of bank mainframe computers and more sophisticated data and record-keeping systems. In the 1990s, the Internet and e-commerce business models flourished. The result was the introduction of online stock brokerage websites aimed at retail investors, replacing the phone-driven retail stock brokering model.

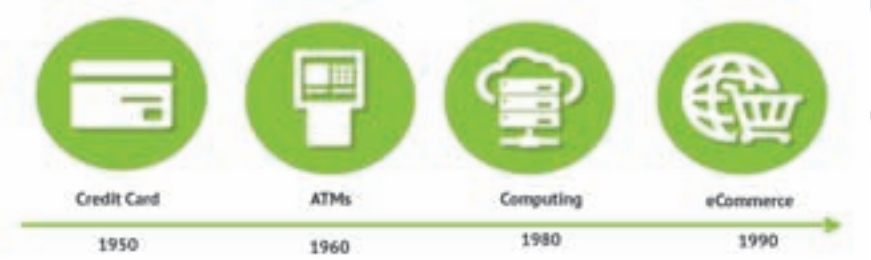


Fig 2: 'Fintech' evolution over last 6 decades

These five decades of developments have created a financial technology infrastructure which most people never think about, but use almost everyday. It's also important to note that throughout that 50 year period, fintech developments also created more sophisticated risk management, trade processing, treasury management and data analysis tools at the institutional level for banks and financial services firms. While these systems are not apparent to retail banking customers, they make up a multibillion industry aimed at supporting the needs of the financial services sector. The most interesting fact about the last 65 years of development in these technological advancements is that while they became mainstream and widely used by banks and their customers, the banking sector was not threatened. On the contrary, banks grew with the advent of these new technologies.

2.2 Fintech Services Today

Now, in the early part of the 21st century, retail financial services are being further digitized via mobile wallets, payment apps, robo-advisors for wealth and retirement planning, equity crowdfunding platforms for access to private and alternative investment opportunities and online lending platforms. These fintech services are not simple enhancements to banking services, but rather replacing banking services completely. So, fintech can be thought of in two broad categories, ***consumer-facing*** *and* ***institutional.*** It is these consumer-facing fintech services which are quickly gaining customers and competing with banks.

3. FINTECH "ECOSYSTEM"

Together, governments, financial services companies, and Fintech startups form an ecosystem. From an innovation perspective, one's achievement encourages and helps others to perform. Companies see what the other is doing and make similar adjustments to their product offerings to sustain in this competitive environmet. There is also increased acceptance of new technologies, as one's addition of a certain technology helps fuel adoption. Ultimately, Fintech ends up being a very small world. The people with the financial expertise needed to inform Fintech projects and those with the technological abilities to make these suggestions come to life more often between companies, either through mergers, a consulting basis, or employment.

3.1 Sectors of Fintech Ecosystem

- **Consumer Lending:** This is the section of Fintech responsible for lending money to individuals, such as through peer-to-peer lending companies. **Examples: Lending Club, Prosper.**
- **Business Lending:** There are also Fintech companies that provide ways for businesses to access additional capital through loans and peer lending. **Examples: OnDeck, Kabbage.**
- **Personal Finance:** Fintech companies also offer tools for individuals to manage their personal finances through better budgeting, tracking spending, and managing buyer rewards like credit card points. **Examples: Mint, Credit Karma.**
- **Consumer Payments:** Fintech powers payments as well, whether it's business to business (B2B) or business to consumer (B2C). Examples: Apple Pay, Samsung Pay.
- **Payments Backend:** Fintech companies also process those payments and handle employee payroll. **Examples: ProPay, ADP.**
- **Point-of-Sale Payments:** Payments consumers make in a retail setting are called "point-of-sale" or POS. **Examples: PayPal, Square.**
- **Equity Financing:** Financial technology companies also let businesses raise money through private equity. **Examples: SeedInvest, Gust.**
- **Institutional Investing:** Fintech companies work with institutional investors as well, providing ways for companies to manage portfolios and tools for conducting analyses. **Examples: SumZero, Contix.**
- **Banking Infrastructure:** Some Fintech solutions benefit financial companies directly through big-data analytics or API

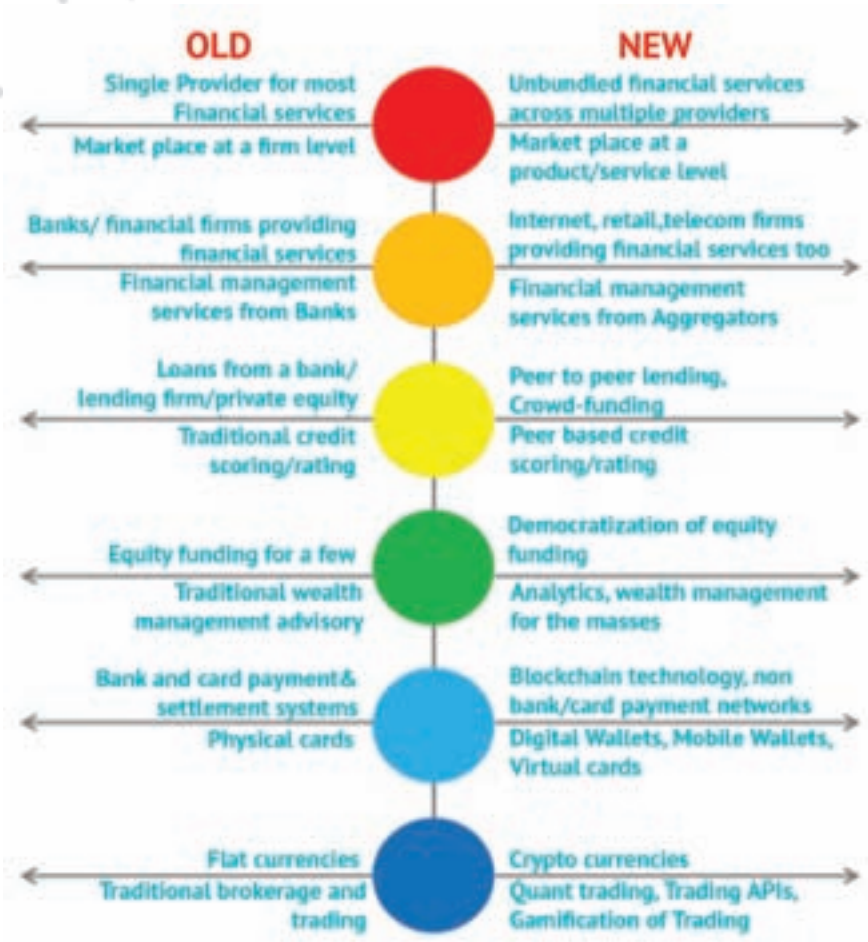


Fig 3: Evolution of financial services with 'Fintech' (a comparative analytic diagram)

integration. **Examples: Mambu, Perzo**.

- **Financial Transaction Security:** Fintech companies may also secure transactions through fraud detection and identity verification. **Examples: Riskified, Centrify.**
- **Crowdfunding:** Financial technology companies in crowdfunding help companies raise money without incurring debt or diluting ownership. Examples: Kickstarter, IndieGoGo.
- **Retail and Commercial Banking:** Some Fintech companies operate as **alternatives to traditional banking services. Examples: Simple, Moven**.
- **Remittances:** International money transfers are also included in Fintech. **Examples: WorldRemit, Ebury.**

4. PRESENT INDIAN SCENARIO AND DEGREE OF ADAPTIVITY TO FINTECH

Multiple factors differentiate markets world-over, and the Fintech sector is not an exception. India, with its own set of challenges and opportunities, stands out as a unique market for Fintech, especially the payments community. Keen interest from the government to reduce cash transactions (Initiative to go cashless and fully digital) with India being one of the largest cash-driven markets is seen as a major positive factor for the Fintech community.

Fig 4: 'Fintech' Ecosystem

With low but rapidly increasing levels of digital/ internet penetration coupled with the government initiatives, our country is attracting investments and interest from around the globe.

According to the report of The National Association of Software and Services Companies (NASSCOM), India has a presence of around 400 companies in the fintech space, with an investment of about $420 million in 2015. The NASSCOM report also estimated the fintech software and services market to grow 1.7 times by 2020, making it worth $8 billion.

The India Fintech Awards (IFTA) is a platform to celebrate and recognise the best innovations from fintech companies.

The Indian fintech landscape is segmented as follows – 34% in payment processing, followed by 32% in banking and 12% in the trading, public and private markets.

Accelerators and incubators tapping the startup ecosystem include PayPal's Star Tank, Yes Bank's collaboration with T-Hub, among others. Visakhapatnam (Vizag) is being developed as fintech hub and the local government of Andhra Pradesh, had opened fintech Valley Tower to promote the investments in this area.

India Fintech Forum represents the Indian fintech firms as part of the Global Fintech Hubs Federation (GFHF).

TheFintech industry is likely to continue its

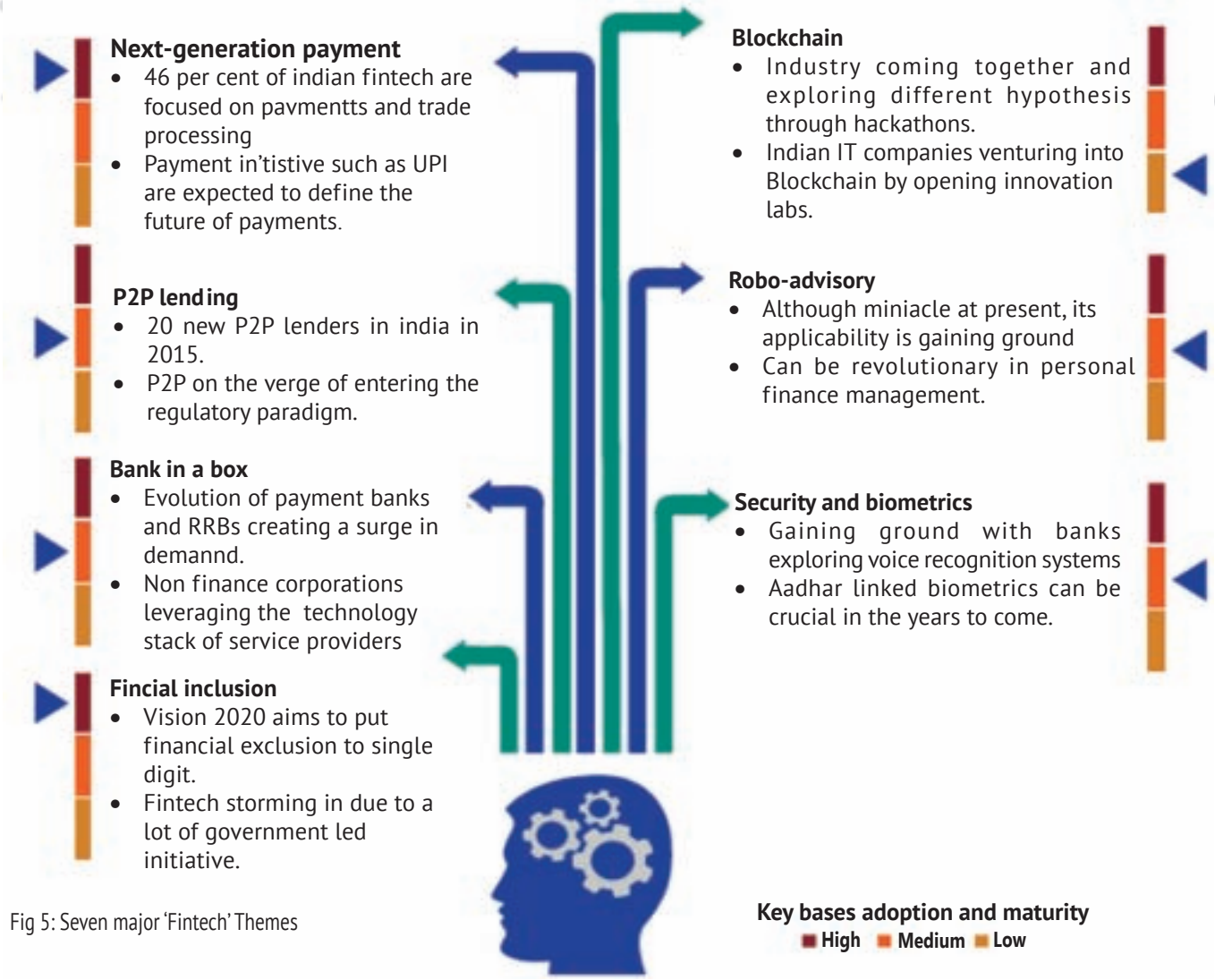


Fig 5: Seven major 'Fintech' Themes

current growth trajectory, with the global Fintech software and services sector predicted to touch USD 45 billion by 2020 at a Compound Annual Growth Rate (CAGR) of 7.1%.

At this stage, India has created an ecosystem that provides start-ups an opportunity to exponentially grow into big businesses. Right from delving into a range of unexplored segments to engaging with foreign markets, Fintech start-ups are delivering innovation that was previously difficult to achieve. The Indian Fintech software market is poised to touch USD 2.4 billion by 2020 from that of USD 1.2 billion in the FY 2016.

In the last few years, the Indian economy, which is significantly cash-driven, has taken advantage of the Fintech opportunity. With a wide range of options, including e-wallets, lending a nd insurance, the variety of services provided in this sector are plenty and have changed the pathway consumers carry out their daily transactions.

Fintech in India is especially beneficial, since the country boasts of an unparalleled youth demographic which is rapidly growing. Furthermore, smartphone penetration is likely to witness an upward trajectory - from 53% in 2014 to 64% by 2018. The financial services market in India is primarily untapped, with 40% of the population having no association with any bank and more than 80% of the transactions carried out through cash. This represents an opportunity for Fintech start-ups to massively spread their wings in different segments.

4.1 Fintech themes – New driveway of Indian Financial Services

Emergence of fintech companies in India is a prelude to the transformation in payments, lending and personal finance space that has manifested in significant investor interest in the recent times. Fintechs are enabling the entire value chain of the traditional financial institutions to establish better and strong connections with customers and to provide new avenues in the market.

Payments and financial inclusion have gained major market attention. At the same time, there is a strong case of investing in the lending and security biometrics space of Fintech. Slowly, a handful of companies are beginning to look at robo-advice and Banks are inclining to new investment avenues. Blockchain is an emerging tech-mammoth and has a potential for mass market implementation in future.

4.2 Boosters of Fintech in India

A range of factors have contributed towards the success and development of the Fintech ecosystem in India. With India's population going digital at a very fast pace, the number of internet users touched 450-465 million in June 2017 and is expected to rise even further. With government's consistent efforts to promote digital services through 'Digital India' initiative, there lies an opportunity for existing Fintech

start-ups as well as potential investors in the immediate future.

Apart from this, the government's push towards financial inclusion for India's population is a critical factor as well. The launch of 'Jan Dhan Yojana' scheme aims to provide a bank account to every citizen. The Fintech start-ups can capitalise on such opportunities by offering simplified and efficient transaction services. The government's biometric identification database, Aadhar, contains information of over 1 billion Indian citizens; this is likely to minimise the effort required for first-level verification of customers.

Furthermore, to emphasize cashless transactions, the government has introduced tax rebates for traders accepting more than 50% as electronic payment.

5. COLLABORATION OF FINTECH AND BANKING SECTOR- DISRUPTIVE OR BENEFICIAL ?

The global Fintech industry is growing rapidly, driven by a powerful blend of innovative start-ups and major technology players. Banks that want to increase its potential must act now to find ways to engage with these innovative organizations to achieve value-creating collaboration. Unless banks and Fintech firms get better at working together, they will not reap the full benefits of innovation. They must partner, or they may perish.

Global economy, growing importance of innovations as well as wide use of technologies have changed the banking business worldwide. Financial technologies (Fintech) have become an integral part of banking, and nowadays banks have started to compete beyond financial services facing increasing competition from nonfinancial institutions providing, for example, payment services. The rapid rise of Fintech has changed the business landscape in banking asking for more innovative solutions. These recent tendencies require the banks to increase investment in Fintech, rethink service distribution channels, especially the business-to-consumers models, increase further standardization of back-office functions, etc. Some members of the financial services industry see the boom in Fintech as a threat to traditional banking industry. Others believe that Fintech has become a challenge that can be turned into an opportunity as it provides more flexibility, better functionality in some areas, and aggregation of services.

Much has been said and written about the impending doom of banking, as customers begin to flock over to Fintech products and services. However, the claim that Fintech will kill banking is still an overstatement. Until very recently, banks had an uninterrupted monopoly over banking, financial, commercial, loans and investments. As banks got stuck firefighting the crisis and dealing with regulation, tech was able to focus on innovation and launch products and services that became integral to people's lives. Smartphones are arguably more valued by people over their wallets.

Since the global financial crisis of 2007-08, regulations have continued to evolve and become increasingly complex, which means more costly and time-consuming processes for banks. At the same time, a new challenge has emerged: Fintech.

Fintech innovators harness internet and mobile technologies and big data to offer a range of tools and services – from tech-enabled payments and crowdfunding, to currency exchange, online lending and wealth management services. The goal is to make financial services more efficient, and improve the services that customers get from their banks. Enter the Fintech firms, who unbundled the services offered by banks and even fused them together to be their verticals, focusing on simplifying the experience for users. It's this expertise in delivering convenience and that makes Fintech appealing.

5.1 Fintech – An Oppurtunity not Threat for Banking Industry

The new wave of financial technology – better known as fintech – is often portrayed as a disruptive force that threatens banks with new, agile and tech savvy competitors. Fintech is transforming the way people and companies connect with their banks, and the way banks manage their back office operations.

However the issue can be looked at with a different angle. Fintech complements rather than threatens banking institutions. Banking has always been about technology, so today's fintech innovation boom represents evolution rather than revolution for traditional banking. It is supplementing and diversifying the existing financial system – not replacing or disrupting it.

6. CONCLUSION- HOW FINTECH IS RESHAPING BANKING

"The threat of Fintech is the impact it will have on customer expectations towards banking services"

6.1 Banks Share of advantages over Fintech firms

Reasons why nonbank fintech firms still face big challenges in competing with banks:

- **Banks have have history and trust with their customers:** Banks are far too involved with their customers to be removed within any foreseeable time frame. Business partners and customers have been using the services of banks since well before the technology boom. There is a history and trust that exists between banks and their customers that fintech is still years away from rivaling.
- **Banks have the deeper pockets :** The market capitalization of Fintech companies is significantly lower than traditional banks.

Fig 6: Effect of Fintechs on Retail Banks

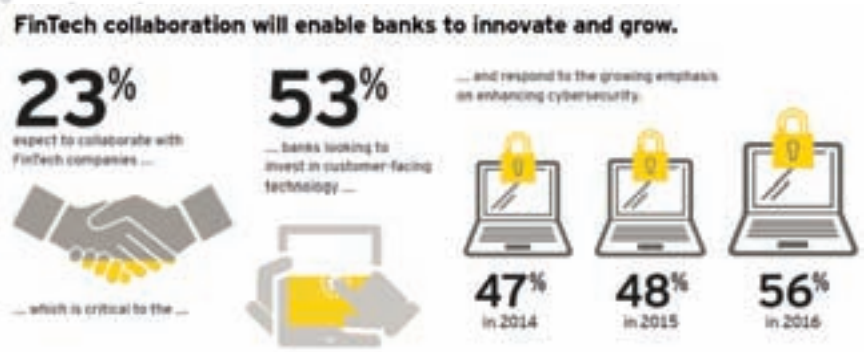


Fig 7: Advantages of Fintech intervention in banking sector

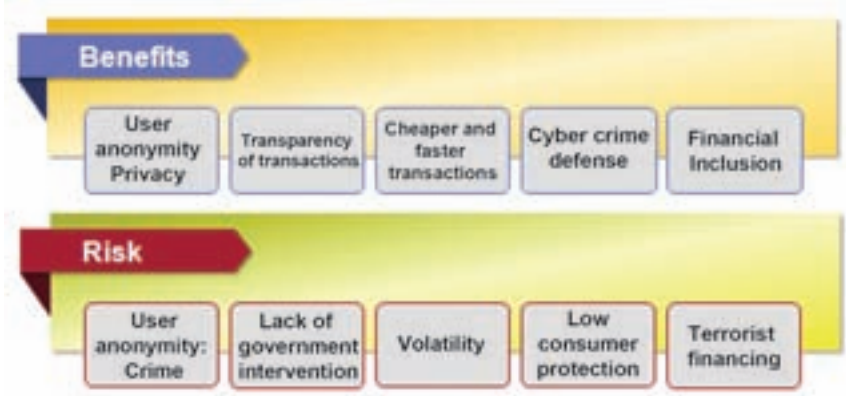


Fig 8: Benefits and risks associated to Fintech

Banks also usually have better name recognition. Having such a large market cap is a signal of security to customers. On the other hand, smaller cap companies are more susceptible to turbulence and market volatility – things business customers would rather avoid.

- **Banks maintain robust sales and development programs:** Although Fintech has made strides in improving the efficiency and ease of use for consumer products, traditional financial institutions have the physical sales force that is best equipped to help customers recognize and navigate technological and structural changes.

Fintech companies usually have smaller marketing and sales organizational structures, favoring digital solutions over humans. Customers often need and prefer personal interaction and confirmation when dealing with money management and making any changes.

- **Banks have big data.** Although several fintech startups are exploring big data opportunities, banks still have the upper hand with respect to big data. After years of data collection, banks have in store large incumbent customer bases and data records regarding customer transactions and behavior. This information is a tremendous asset that banks possess, not fintech companies. This data can be used to identify customer requirement for new payment services and to mitigate and underwrite risk in innovative ways.

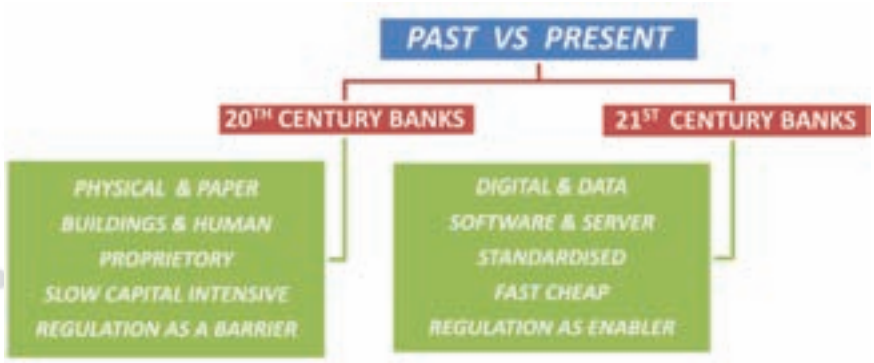


Fig 9: Comparison of banking scenario over time with the advent of Fintech

6.2 Joining hands for a win-win partnership

Competition between banks and new entrants may give way to direct collaboration across the Fintech ecosystem.

In such case, both parties should profit. Potential opportunities span from product design and development by the start-ups to distribution and infrastructure capabilities by banks. However, several major impediments inhibit business relations between banks and Fintechs. From the banks' perspective, Fintechs lack the proper IT security and regulatory certainty, while Fintechs believe banks can be difficult to work with due to differences in management and culture as well as differences in operational processes.

B2B solutions get at the heart of what often ails legacy financial institutions, antiquated technology that is difficult to maneuver. Banks are increasingly utilising open development and Software-as-a-Service (SaaS) solutions offered by Fintech start-ups in an effort to easily integrate and streamline operational capabilities and move toward digital/mobile delivery. The incorporation of application program interfaces (APIs) enables third parties to develop value-added solutions and features that can easily be integrated with bank platforms.

6.3 "PATH TO FOLLOW"

- Banks should continue to monitor developments in the Fintech space, including regulation, new products and activities. Banks should not consider Fintechs as a disruptive agent but an avenue to enhance the technology in the immediate future to serve the customer even better.
- Banks should be proactive in determining how they can compete or partner with Fintech companies to provide more efficient and desirable services to customers.
- Banks should look at how Fintech companies can assist with meeting regulatory obligations and reducing risk through innovative technologies.

Collaborations with Fintech and Start ups– The Need of the hour

Javed Ahmed Rawther
Senior Manager
Digital Banking Dept.

Fintech - an acronym for Financial Technology is the new buzz word across the globe and is awakening banks and financial institutions alike to be aware of the challenges and new possibilities that awaits them in the near future. It has been imperative for banks, irrespective of region and geography to embrace the future and be open to the idea and challenge of technology taking centre stage in the field of banking with emerging and disruptive technologies like Block Chain, Augmented Reality, Virtual Reality, Artificial Intelligence, Robotic Process automation, IOT(Internet of Things) to name a few.

Fintech companies make a huge difference in accelerating the pace at which change happens are also responsible for reshaping the financial services industry radically. Banks have shown keen interest in recognizing the potentials of fintechs which the sole objective to collaborate with them so as to ensure and usher in enhanced products and value to their customers which in turn helps in retention and long term relationships.

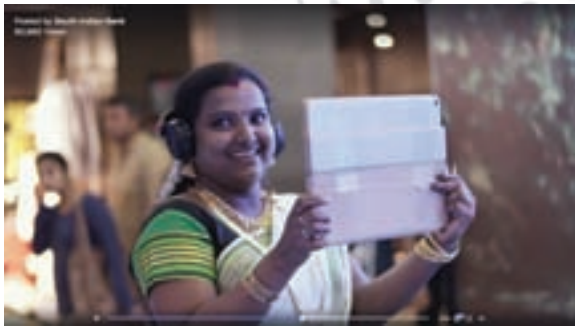
Initiatives taken up by South Indian Bank

VR and AR (Virtual Reality and Augmented Reality)

Virtual reality (VR) is a computer technology that uses Virtual reality headsets, sometimes in combination with physical spaces or multi-projected environments, to generate realistic images, sounds and other sensations that simulate a user's physical presence in a virtual or imaginary environment. Augmented Reality is a live direct or indirect view of a physical, real-world environment whose elements are augmented by computer-generated sensory input such as sound, video, graphics or GPS data. Augmented reality enhances one's current perception of reality, whereas in contrast, virtual reality replaces the real world with a simulated one

Augmented reality and Virtual Reality is quickly becoming one of the hottest trends in the marketing and advertising industries, recognized as an innovative and creative way of connecting with customers and increasing engagement.

In order to bring out unique experience for its customers and to ensure a positive brand engagement exercise, South Indian Bank partnered with Ms VRnxt, a Tech Start up to rollout Vallamkalli (Snake Boat Race) experience using VR/AR technology which was something unique and novel and was showcased in select malls in Kerala during the festive season of Onam . The response received for the event was very positive on the ground level and favorable reviews and response was also received from the social media platforms of our Bank where the 360 degree video of



the boat race and the post event video was also uploaded.

SIBermart-Our very own E Commerce Shopping Gateway

Always innovating and finding new ways to engage with the customers is the order of the day and going one step ahead in this direction, we have partnered with Ms FTL Technology Systems ltd, a shopping web site platform aggregator and together we have launched SIBermart, an commerce Comparison Shopping Engine which will have the features of Search and compare prices of products across e-commerce portals and customer can choose the portal from where to make the purchase . Online and mobile customer's of our banks can access the SIBermart portal and validate their credentials. Post successful validation the SIBermart portals enables them to compare products across e commerce websites like Amazon, Flipkart, InfiBeam, Tata Cliq, etc and move onwards to the respective selected portal. By giving an opportunity for customers to have an experience of retail shopping through the portal, we will in the long run be able to successfully engage the customers meaning fully and pro actively with the banks and its services.

Onam celebrations: RO Trivandrum

The KITCHEN CAN- A Start Up Initiative

Having a very vibrant start up eco system is very essential to the community and country for the specific needs of enterprising minds, consistent job creation and value driven companies which can be engines of growth. A startup ecosystem is formed by people, startups in their various stages and various types of organizations in a location (physical or virtual), interacting as a system to create and scale new startup companies.

As an initiative to reach out to potential fin techs and startups to work with the bank and to showcase ourselves as a receptive partner to new initiatives and technologies, we have partnered with THE KITCHEN, a non profit initiative wherein a platform is provided for start ups and fintechs, especially in the areas of Fintech,Payments, IOT(Internet of Things), Virtual Reality, Robotics , Mobility etc and also other areas.

After Partnering with event , we have been able to take forward some of the relationships to the next level wherein Bank has been able to identify potential partners to collaborate for mutual benefit to ensure we have something unique for the customer to experience.

Partnering with Maker Village Cochin ~ An Electronics Incubator.

As part of partnering with the KITCHEN CAN event, we had the opportunity to explore and to partner with Maker Village, Cochin, an electronics incubator which is a joint initiative by Ministry of Electronics and Information Technology (MeitY) and Indian Institute of Information Technology and Management Kerala (IIITM K), the nodal agency of the project, Kerala Startup Mission and Govt of Kerala to promote consumer electronics based innovation and set up labs and innovation centers that focus on the current trend and emerging technologies of disruptive nature to bring India to the forefront of innovation in the electronics space.

We have been able to initiate discussions with startups based out of Maker Village to explore collaborative opportunities wherein a senior level delegation from the bank had done a screening of the start ups and their ideas. The bank intends to provide them a platform to support viable and feasible ideas which can be used for valid scenarios and to extract possible mileage out of collaboration.

Block Chain

One the technology to have most important impact on human history is blockchain , less commonly known as distributed ledger technology (DLT), and is the underlying foundation that can create shared digital databases of entries that are unchangeable Block chain is a foundational technology and is transforming internet from an internet of information to internet of value. Block chain will help you transfer value digitally across time and space .Block chain has evolved from being the base technology of bitcoin and is making its leeway into enterprise .Block chain is transforming every type of business and changing the business models across the world across industries. Blockchain is finding its use cases every industry, fintech, supply chain, IOT, healthcare to name a few.

Kerala Management Association's Excellence Award 2017(Special Jury Mention) M T Jose, Dy Gen. Manager (Personnel) and Sanjeev Soman K, Senior Manager(Personnel) receiving from Mr Deepak Vohra Ex-Indian Ambassador to Poland, for Innovative HR policies undertaken by our Bank

Banks in India have been pro active in identifying the utility of Block Chain and how the same can impact the financial services sector in areas of remittances , trade finance, syndication, Corporate Loan, AML, KYC validations, Supply Chain Finance and other areas.

Banks are partnering with Fintech companies to collaborate and identify valid use cases to identify smoother processes and better validation and integrity. Bank Chain is a collaborative group wherein South Indian Bank is a member and together with Banks like SBI, ICCI Bank, Bank of Baroda and other major remittances house, work together to identify and leverage the platform of Block Chain to identify valid use cases in Banking and to initiate Proof of Concept based project which will eventually turn out to a Pilot Operation of the Technology which once validated can be moved into production.

To Sum it Up

Constantly innovating and improving is the hallmark of fintech companies and in the future, Banks will identify partnering with Fintech companies as a business model wherein the Fintech partners are treated as corporate clients who use the platforms offered by banks to reach out to newer audiences and banks .We are positioned in the industry to grab the opportunity of initiating collaborative partnerships with Fintech and other valid opportunities to ensure that the Bank and its customers benefits from the same and the journey has started in the right note.

Inaugurations & Events

inauguration of R T C at Coimbatore by Sri Benoy Varghese, SGM (Credit), in the presence of Ms Minu Moonjely, DGM & Regional Head, Mr Vincent Vellanikaran and Mr Anoop A V CMs, RO Coimbatore.

Inauguration of our 52nd Extension counter at St. John's Medical College & Hospital attached to branch Koramangala by Rev. Dr. Paul Parathazham, (Director, St. John's MCH) in the presence of Mr. Jose P. Varghese (DGM & Regional Head), Dr. John Joseph Alapatt (Bank Director) on 21.07.2017

Inauguration of First Aadhaar Enrollment Station at Banerji Rd Br., Ernakulam by Sri. Raphael T J, SGM and CIO, in the presence of Sri. Naushad, Regional Coordinator, UIDAI, Sri. Shelly Joseph, JGM and Regional Head, RO Ernakulam, Sri. Ajit C Jacob, DGM, Customer Relations Dept and Sri. Sreekumar Chengath, DGM, Transaction Banking Dept. on 08.09. 2017

Inauguration of Branch Nagpur Sadar by Rev. Fr. Abraham V. (Archbishop, Archdiocese of Nagpur) in the presence of Sri. R. Murlidhar (ED -Finance, Sun flag Iron & Steel Co. Ltd.), Sri. Anup Kumar Satpathy (CGM, Container Corporation of India Ltd), Sri. T. P Joseph (AGM & Regional Head, R O Pune), Shri. Chintan Jain (BM, Nagpur Sadar) on 23.08.2017.

65th edition of Nehru Trophy Boat Race was held on August 12, 2017 at Alappuzha. We were one of the sponsors and launched a motor boat branded with Bank's advertisement. The boat was flagged off at 9.00 a.m. by Mr. Joly Sebastian, DGM & Regional Head, RO Tiruvalla.

Group Life Term Insurance claim Rs.20 lakh handed over to nominees of Late. Smt. Elsy M.A. by Sri. V. L. Paul (GM Admin) and Sri. Thomas Antony (Reg. Head - SBI Life Insurance), Sri. M.T. Jose (DGM & Head - Personnel Department) along with other dignitaries.

Glossary – Fin Tech

This is a small and limited Glossary of Terms from the big world of Financial Technologies. Wherever possible the technologies are explained in relation to our Bank.

API: Application Program Interface. Software that allows two different softwares to communicate with each other instantly. In our HRMS system, when expense is verified the credit happens through API's from HRMS to Finacle

BIG DATA: Big data is a term for data sets that are so large or complex that traditional data processing application software is inadequate to deal with them. Big data challenges include capturing data, data storage, data analysis, search, sharing, transfer, visualization, querying, updating and information privacy. Implementation is under progress in our DBD in this area especially analytics of our big Customer data

BIOMETRIC AUTHENTICATION: Biometric authentication is a security process that relies on the unique biological characteristics of an individual to verify that he is who is says he is. Our HRMS system is having Biometric devices integrated to capture the attendance of employees.

BLOCK CHAIN: A record of all public bitcoin transactions updated in real time.A blockchain can serve as an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way. Lot of research is happening in this area in Banks and FIs

CLOUD: A virtual infrastructure that holds an unlimited amount of data and information. The practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. Public and Private Clouds are being offered by various players. Banks are getting into this space carefully due to security concerns. However considering the cost advantage private clouds are getting popular in Financial industry

CRM: Customer relationship management (CRM) is a term that refers to practices, strategies and technologies that companies use to manage and analyze customer interactions and data throughout the customer lifecycle, with the goal of improving business relationships with customers, assisting in customer retention and driving sales growth. We are having the CRM solution from Microsoft. The solution is getting widened to capture more customer data.

DIGITAL SIGNATURE: A valid digital signature gives a recipient reason to believe that the message was created by a known sender (authentication), that the sender cannot deny having sent the message (non-repudiation), and that the message was not altered in transit (integrity). A digital certificate, an electronic document that contains the digital signature of the certificate-issuing authority, binds together a public key with an identity and can be used to verify a public key belongs to a particular person or entity. All our RTGS/NEFT messages are digitally signed before being send into RBI network.

ENCRYPTION: Encryption is the most effective way to achieve data security. To read an encrypted file, you must have access to a secret key or password that enables you to decrypt it. Unencrypted data is called plain text .Encrypted data is referred to as cipher text. All our Financial data is transferred in Encrypted form through the network. Watch out for the https in the URL address of Finacle, which means the data is encrypted and transferred

ETHICAL HACKING: An Ethical Hacker exposes vulnerabilities in software to help business owners fix those security holes before a malicious hacker discovers them. We do VAPT(Vulnerability Assessment and Penetration Testing) whenever we have a requirement to expose the software to Internet. This will assess the security vulnerabilities of the software and the same gets fixed on an ongoing basis.

INTERNET OF THINGS: The interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data. Along with ATMs, banks can use IOT data in bringing on demand services closer to customers by providing kiosks, and increase the accessibility of services to customers.

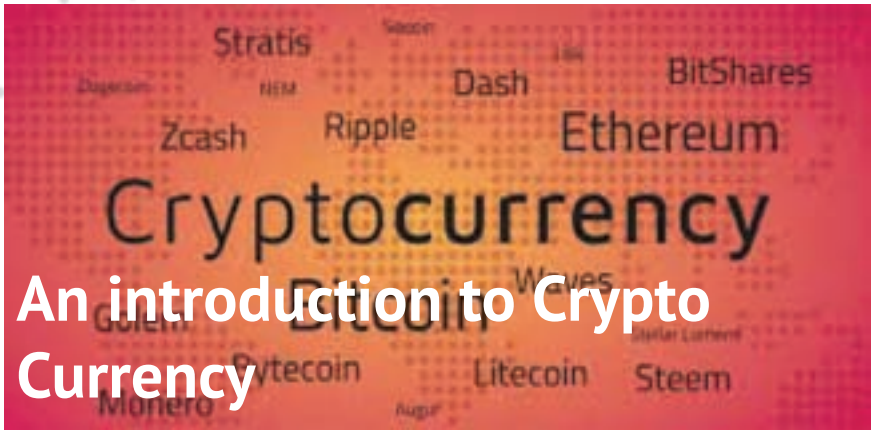
NACH: National Automated Clearing House also known as NACH is the centralised web-based payment solution that helps the banks, corporate sectors, government and other financial institutions to handle bulk payments. NACH transactions are handled centrally in our Mumbai CTS Team. For DBT and other Govt schemes, we have CPSMS software to automate the credits into FINACLE.

SCM: Supply chain management (SCM) is the oversight of materials, information, and finances as they move in a process from supplier to manufacturer to wholesaler to retailer to consumer. Supply chain management involves coordinating and integrating these flows both within and among companies. We are in the process of implementing this solution which could cater to our corporate customers

SSO: Single Sign On (SSO) occurs when a user logs in to one application and is then signed in to other applications automatically, regardless of the platform, technology, or domain the user is using. The user signs in only one time hence the naming of the feature (Single Sign On). The SSO feature in Finacle where the same user can access, Finacle, Signature Module and Customer module in one single login is an example.

SWIFT: The Society for Worldwide Interbank Financial Telecommunication (SWIFT) provides a network that enables financial institutions worldwide to send and receive information about financial transactions in a secure, standardized and reliable environment. We have exclusive connectivty to SWIFT network for handling international transactions

Deepak Damodar
Chief Manager
IT Operations Dept



An introduction to Crypto Currency

Deepu S
Senior Manager
IT Operations Dept

Defining crypto currency in its simplest form is that it is digital money, created from digital codes. Now since it is defined as "digital", how safe is it? How can you have a purely digital currency? Can't I just copy your digital currency and keep it? Its obvious that we will have such doubts getting raised in our minds. Just try to get some quotes from people around the globe regarding "Bitcoin", which is a worldwide cryptocurrency and digital payment system and you may come across in many promising statements.

"Bitcoin is a remarkable achievement and the ability to create something that is not duplicate in the digital world has enormous value" - Eric Schmidt, Executive Chairman of Alphabet Inc (Parent Company of Google).

If I have framed the introduction right, you may also be wonderstruck now that how a concept like crypto- currency survived, rather evolved to a stature that it is enjoying today. My objective is a sincere effort to explain the most important things about crypto currencies. Crypto-currencies have become a global phenomenon known to most people. While it is still in the grey area and not understood by many people, many in the world are getting aware of its increasing importance.

Let us try to understand crypto-currencies which emerged as a side product of another invention. Satoshi Nakamoto, the unknown inventor of Bitcoin, which is the first and still most important crypto-currency, never intended to invent a currency. In the nineties, there had been many failed attempts to create digital money. After seeing all the centralized attempts fail, Satoshi tried to build a digital cash system without a central entity. Like a Peer-to-Peer network (interconnected nodes without a centralized administrative system) for file sharing. This decision resulted the birth of crypto-currency. In his announcement of Bitcoin in late 2008, Satoshi declared that he has developed "A Peer-to-Peer Electronic Cash System" which was a decentralized digital cash system.

So what was Satoshi's magic to realize this pure digital currency? Though the answer is a bit technical, we will try to understand it in a simple way. To realize digital cash, you need a payment network with accounts, balances, and transaction. One major problem that every payment network has to solve is to prevent double spending i.e. to prevent one entity from spending the same amount twice. In our payment systems, this is done by a central server which keeps record about the balances. In a decentralized network, there won't be such a server. So, how is this verification done in a decentralized network? Satoshi proved that it is possible to achieve this consensus without a central authority by employing every single entity of the network to do this job. Every peer in the network needs to have a list with all transactions to check if future transactions are valid or if there is an attempt to double spend.

Even if the peers of the network disagree about only one single, minor balance, everything is broken. This is the concept known as Blockchain and crypto-currencies are a part of this solution. Hence, crypto-currencies, if reduced to a simple definition, can be taken as limited entries in a database which no one can change without fulfilling specific conditions. This sound normal, but isn't it exactly how we define a currency?

Consider the money in your bank account: What is it more than entries in a database that can only be changed under specific conditions? You can even take physical coins and notes: they are also limited entries in a public physical database. Now, we all will agree that Money is all about a verified entry in some kind of database of accounts, balances, and transactions.

A crypto-currency like Bitcoin consists of a network of peers. Every peer has a record of the complete history of all transactions and the balance of every account. The transaction is known almost immediately by the whole network but only after a specific amount of time it gets confirmed. It is to be understood that confirmation is a critical concept in crypto-currencies since crypto-currencies are all about confirmation. As long as a transaction is unconfirmed, it is pending and can be forged. Forging a transaction here is a long topic for discussion and I leave it to the reader if interested, to do a quick analysis on this and understand how it is near impossible to do that. When a transaction is confirmed, it is set in stone. It is no longer forgeable and it can't be reversed and it will become a part of an immutable record of historical transactions: of the so-called blockchain.

The next major term in a crypto currency network is "miners". Who are they? Are they like Gold miners? The miner's activity is the single most important part of crypto-currency system. Principally everybody can be a miner. Since a decentralized network has no authority to delegate this task, a crypto-currency needs some kind of mechanism to prevent one ruling party from abusing it. Imagine someone creates thousands of peers and spreads forged transactions This can result in system break immediately. So, Satoshi set the rule that the miners need to invest some work of their computers (processing power) to qualify for this task. In fact, they have to find a hash – a product of a cryptographic function – that connects the new block with its predecessor. This is the only important basis of a cryptologic puzzle the miners compete to solve. After finding a solution, a miner can build a block and add it to the blockchain. As an incentive, he has the right to add a so-called coinbase transaction that gives him a specific number of Bitcoins. This is the only way to create valid Bitcoins.

Only miners can confirm transactions. This is their major job in a crypto-currency network. They take transactions, stamp them as legitimate and spread them in the network. After a transaction is confirmed by a miner, every node has to add it to its database and becomes a part of the blockchain. For this job, the miners get rewarded with a token of the crypto-currency, for example with Bitcoins.

Now you would have understood that Bitcoins can only be created if miners solve a cryptographic puzzle. Since the difficulty of this puzzle increases with the amount of computer power that gets invested, there is only a specific amount of crypto-currency token that can be created in a given amount of time. They are called CRYPTOcurrencies because the consensus-keeping process is secured by strong cryptography. Crypto-currencies are not secured by people or by trust, but by pure mathematics. Due to its revolutionary transactional and monetary properties, crypto-currencies have become a success. You would now agree with me that crypto-currencies are digital gold. Sound money that is secure from political influence. Money that promises to preserve and increase its value over time. Crypto-currencies are also a fast and comfortable means of payment with a worldwide scope.

Like any other technology, it has got its problems too- they are private and anonymous enough to serve as a means of payment for black markets and any other outlawed economic activity. But while crypto-currencies are mainly used for payment, its use as a means of speculation and a store of value limits the payment aspects.

Crypto-currencies have three useful qualities in a currency, according to The Economist in January 2015: they are "hard to earn, limited in supply and easy to verify". Economists define money as a store of value, a medium of exchange, and a unit of account and agree that Crypto-currencies have some way to go to meet all these criteria.

My dear colleagues, I believe that the few minutes spent with this article would have helped you understand the world of digital currencies. The economy has always emerged: from Barter economy system to adopting gold and later on fiat money as the medium of exchange. Can digital currency will be adopted as the future medium of exchange? Well, only time can prove.

Distributed Ledger, Blockchain, Bitcoin ...

Amal Dev R.
Asst. Manager IT
IT Operations Dept.

Everyone will be familiar with the word Ledger or General Ledger, which is nothing but a book for recording and totaling transactions on accounts and provide the balance for each account. These ledger books were kept safely at each branch and all transactions of the branches customer are manually entered and tailed by the branch staff. Later, ledger books got replaced by computer files, where the records are maintained by specialized accounting software. But a customer from a bank's branch can do transactions with the same branch only as the account details are primarily kept at the home branch. As technology developed, banks upgraded to core banking software with centralized ledger maintained at banks data center using core banking applications like Finacle. With core banking in place, customers can bank with any branch of the bank with ease and also with ATMs and digital products like internet and mobile banking customer can do transactions round the clock.

With the advances in technology, ledgers are also getting revolutionized. In a view to provide a public, neutral and always available ledger with immunity to tampering, a new Distributed Ledger was introduced. A distributed ledger can be described as a ledger of any transactions or contracts maintained in decentralized form across different locations and people, eliminating the need of a central authority to keep a check against manipulation. All the information on it is securely and accurately stored using cryptography and can be accessed using keys and cryptographic signatures. Once the information is stored, it becomes an immutable database and is governed by the rules of the network. While centralized ledgers are prone to cyber-attack, distributed ledgers are inherently harder to attack because all the distributed copies need to be attacked simultaneously for an attack to be successful. Further, these records are resistant to malicious changes by a single party.

A distributed ledger is usually achieved by using peer-to-peer network with consensus algorithms to ensure replication of transactions across all the copies across the network. Distributed ledger technology has great potential to revolutionize the way governments, banks, institutions, and corporate work. It can help governments in tax collection, issuance of passports, record land registries, licenses and outlay of social security benefits as well as voting procedures. While the distributed ledger technology has multiple advantages, it's in a nascent stage and is still being explored to adopt in the best possible ways. Numerous banks trialed distributed ledgers for international payments.

One of the successful implementation of distributed ledger is 'BlockChain from Bitcoin'. it was originally conceptualized by an anonymous person or group known as Satoshi Nakamoto, in 2008 and implemented the following year as the accounting method for the virtual currency Bitcoin, where it serves as a digitized, decentralized public ledger for all transactions. BlockChain is constantly growing as 'completed' blocks (the most recent transactions) are recorded and added to it in chronological order, it allows market participants to keep track of digital currency transactions without central recordkeeping. In conventional banking terms, blockchain is like a full history of a financial institution's transactions, and each block is like an individual bank statement and the entire data is distributed to all the participants of the network. It is like everyone is having a copy of entire transactions.

Bitcoin, being the first successful implementation of distributed ledger technology as digital currency, it compensates for the lack of a physical coin by tracing the history of each transaction and logging that history each time a coin is transferred from one person to another. Each bitcoin trade makes available the full history of that bitcoin, in the blockchain. The blockchain database is shared by all nodes (computers connected to the network) participating in the Bitcoin system. Upon joining the network, each connected computer receives a copy of the blockchain, which has records, and stands as proof of, every transaction ever executed. In order for entries in the blockchain to be trustworthy and secure, Bitcoin relies on significant computational

How a ₿itcoin transaction works

Bob, an online merchant, decides to begin accepting bitcoins as payment. Alice, a buyer, has bitcoins and wants to purchase merchandise from Bob.

WALLETS AND ADDRESSES

Bob and Alice both have Bitcoin "wallets" on their computers.

Wallets are files that provide access to multiple Bitcoin addresses.

An address is a string of letters and numbers, such as 1HULMwZEPkjEPwCh43BeKJLJybLCWrfDpN.

CREATING A NEW ADDRESS

Bob creates a new Bitcoin address for Alice to send her payment to.

Each address has its own balance of bitcoins.

It's tempting to think of addresses as bank accounts, but they work a bit differently. Bitcoin users can create as many addresses as they wish and in fact are encouraged to create a new one for every new transaction to increase privacy. So long as no one knows which addresses are Alice's, her anonymity is protected.

SUBMITTING A PAYMENT

Alice tells her Bitcoin client that she'd like to transfer the purchase amount to Bob's address.

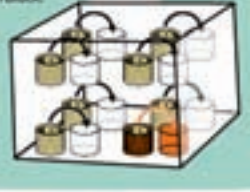
Public Key Cryptography 101

When Bob creates a new address, what he's really doing is generating a "cryptographic key pair," composed of a private key and a public key. If you sign a message with a private key (which only you know), it can be verified by using the matching public key (which is known to anyone). Bob's new Bitcoin address represents a unique public key, and the corresponding private key is stored in his wallet. The public key allows anyone to verify that a message signed with the private key is valid.

VERIFYING THE TRANSACTION

Gary, Garth, and Glenn are Bitcoin miners.

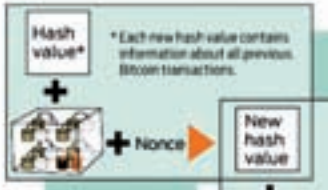
Their computers bundle the transactions of the past 10 minutes into a new "transaction block."



The miners' computers are set up to calculate cryptographic hash functions.

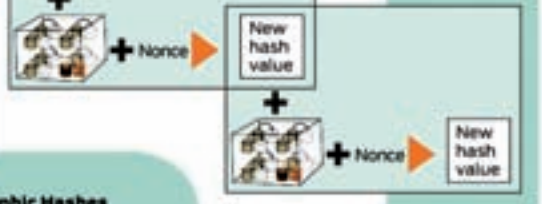
Alice's wallet holds the private key for each of her addresses. The Bitcoin client signs her transaction request with the private key of the address she's transferring bitcoins from.

Anyone on the network can now use the public key to verify that the transaction request is actually coming from the legitimate account owner.



* Each new hash value contains information about all previous Bitcoin transactions.

The mining computers calculate new hash values based on a combination of the previous hash value, the new transaction block, and a nonce.



Cryptographic Hashes

Cryptographic hash functions transform a collection of data into an alphanumeric string with a fixed length, called a hash value. Even tiny changes in the original data drastically change the resulting hash value. And it's essentially impossible to predict which initial data set will create a specific hash value.

Nonces

To create different hash values from the same data, Bitcoin uses "nonces." A nonce is just a random number that's added to data prior to hashing. Changing the nonce results in a wildly different hash value.

Creating hashes is computationally trivial, but the Bitcoin system requires that the new hash value have a particular form—specifically, it must start with a certain number of zeros.

The miners have no way to predict which nonce will produce a hash value with the required number of leading zeros. So they're forced to generate many hashes with different nonces until they happen upon one that works.

Each block includes a "coinbase" transaction that pays out 50 bitcoins to the winning miner—in this case, Gary. A new address is created in Gary's wallet with a balance of newly minted bitcoins.

TRANSACTION VERIFIED

As time goes on, Alice's transfer to Bob gets buried beneath other, more recent transactions. For anyone to modify the details, he would have to redo the work that Gary did—because any changes require a completely different winning nonce—and then redo the work of all the subsequent miners. Such a feat is nearly impossible.

Compliance Department at Kanthalloor-Munnar

'*Personnel to Personal*' at Indriya Sands, Kuzhippilly

Branch Thrissur North at Munnar

Team RO Coimbatore at Fern Hill Palace, Nilgiris.

power and interested parties or "miners" to validate and confirm transactions, using a structured process for adding transactions records to the blockchain in return for rewards in form of Bitcoins. The use of the blockchain for bitcoin made it the first digital currency to solve the double spending problem without requiring a trusted administrator.

In the blockchain, bitcoins are registered to a bitcoin addresses. Bitcoin address is an identifier of 26-35 alphanumeric characters, beginning with the number 1 or 3, that represents a possible destination for a bitcoin payment. Addresses can be generated at no cost by any user of Bitcoin. Bitcoin address essentially is a public key (as in cryptography) with corresponding pair of private key is available only to the owner of the bitcoin address. These addresses are stored either in bitcoin wallets or in physical tokens just like a USB thumb drive. To be able to spend the bitcoins, the owner must digitally sign the transaction using his private key. The network verifies the signature using the public key and validates the transaction which will get added to the blockchain.

A blockchain consists of two kinds of records: transactions and blocks. Blocks hold batches of valid transactions that are encrypted into a hash value and encoded into a tree like structure. Each block includes the cryptographic hash of the prior block in the blockchain using the SHA-256 hashing algorithm, which links it to the previous block, thus giving the blockchain its name. This process of validating the transactions and encoding in to the block is called Mining, which is the record-keeping service done through the use of computer processing power. Miners keep the blockchain consistent, complete, and unalterable by repeatedly verifying and collecting newly broadcast transactions into a new group of transactions as a block. This iterative process confirms the integrity of the previous block, all the way back to the original genesis block. In order to be accepted by the rest of the network, a new block must produce a proof-of-work. The proof-of-work is a cryptographic task that requires miners to find a number called a nonce, such that when the block content is hashed along with the nonce, the result is numerically smaller than the network's difficulty target. This proof is easy for any node in the network to verify, but extremely time-consuming to generate, as for a secure cryptographic hash, miners must try many different nonce values (usually the sequence of values is 0, 1, 2, 3, ...) before meeting the difficulty target.

Bitcoin, being a virtual currency, have no official connection to the real economy. The bitcoin price or the value of the virtual currency is arrived from demand and supply of the bitcoin available in the market. Bitcoins are traded as assets in different virtual currency exchanges in the world. Bitcoins can be traded for almost all the currency in virtual currency exchanges, which makes it a possible way of international transfers .The price of bitcoin is very volatile which prevents the common man to invest and trade. This is partly due to liquidity, which is the amount of bitcoin that is flowing through the market at any given time.

Achievements

Promotion

Mr. Paul V.L.
Promoted as Senior General Manager (Admin)

IIBF Exam – Prize Winner2016-17

Mr. Biju E Punnachalil
Asst. Gen. Manager
Integrated Risk Mgmt. Dept
Secured First – Highest Marks in Subject Central Banking –

Ms. Suma V George
Sr. Manager
Chalakudy Branch
Secured First – Highest Aggregate in Dip. In Comm. Derv. Banker

Mr. Nanda Kumar C
Manager
Staff Training College
Secured First – Highest Marks in Subject Credit Management (Certified Credit Officer)

CAIIB

Jithin Thomas
Clerk
Chelakkara

Rona Johnson
Clerk
Elapully

Arundinesh M
Prob. Officer
Nagapattinam

Nikhil K. Madhu
Asst. Manager
Thiruvalla

Soumya V H
Clerk
Trivandrum Chalai

Dinesh Ranganathan CN
Asst. Manager
Chennai Nungambakkam

Helga Simon
Clerk
Valancherry

Risvin Shamshad
Asst. Manager
CBE Gandhipuram

Sibin Jacob
Asst. Manager
Attingal

Jithin Thomas
Senior Manager
Coonoor

Megha Krishnankutty
Asst Manager
Mumbai NarimanPoint

Jibin Jose
Clerk
Kozhencherry

Rajdeep Chakraborty
Clerk
Kolkata Burra Bazar

Prashanth M.A.
Manager
Pakalkuri

Nikhil K P
Asst Manager
T Subbulapuram

Chelsy Jose
Clerk
Kasargode

Anusha Kurian
Asst Manager
Manathavady

Arjun Raj K
Asst Manager
Kozhikode Mavoor Rd.

Antony George
Asst Manager
Ba'lore Indira Nagar

Deepika Joshi
Clerk
Panchkula

Indira M.D.
Manager
Chandigarh

Shivani Gupta
Clerk
Patpargunj

Sandhya Bhonsle
Asst. Manager
Ba'lore Electronic City

Sruthi Narayan
Asst Manager
Peroorkada

Purwesh Prachee
Manager
Jamshedpur

Vinay Kumar Chauhan
Manager
Shimla

Gitanjali
Clerk
Shimla

Ronald Fernandez
Senior Manager
Compliance Dept.

Prince Mathew T.J.
Manager
IT Operations Dept.

Anna Lovely M X
Clerk
Annojiguda

Archana N
Clerk
Ba'lore Cox Town

Anusuri Satyaveni
Clerk
Manchirevula

Achievements

Associate Members - Indian Institute of Banking & Finance

Mr. Peter A.D.
Dy. Gen. Manager
Staff Training College

Mr. Paul Thaliath
Dy. Gen. Manager
Credit Department

Mr. Francy Jos E.
Asst. Gen. Manager
Secretarial Dept

Mr. George Joseph
Chief Manager
Secretarial Dept

Children's Accomplishment

Nandana Sony D/o Mr. Sony A., Dy. General Manager qualified NTS Scholarship in National Talent Search Exam (NTSE) in Std, X conducted by NCERT. Now studying in XIth at Bhavan's Vidya Mandir, Elamakkara.

Vandana P. D/o Mr. Vinayachandran P., Palakkad Main Branch, has secured full marks (1200/1200) in Plus Two Board Exam Kerala 2017 (Science group).

Master Pessoa Mathews Sibi, S/o Mr. P. M. Sibi, Dy. General Manager who became the 'Under-10 kiddies individual champion' winning Silver in 100 meter race, 50 meter race and 100 X 4 meter relay in the 'All Kerala CMI School Athletic Meet'.

Pencil Drawing

Haris M.
Asst. Manager
Perinthalmanna

JAIIB

Sujithkumar S
Clerk
Bhavani

Epson Thomas
Clerk
Ernakulam Market Rd.

Mrithul Joy
Clerk
Ernakulam MG Rd

Irine Thomas
Clerk
Kandassankadavu

Mohit Kumar Miharia
Pro. Manager (CA)
Chennai G T

Vignesh R
Clerk
Madurai

Leo Dalttany L
Clerk
Nagercoil

Namboodiri Shreena K.
Clerk,
Ponnani

Anju Anto
Clerk
Ponnani

Maria Kallukaran
Clerk
Thrissur Main

Ajmal Basheer
Clerk
Karuvatta

Mintu Jose
Clerk
Kanjirappally

Preema M Jose
Clerk
Theodical

Divya Lekshmi D.
Asst Manager
Trivandrum Main

Albin Joseph
Clerk
Idukki

Sathi P.
Assistant Manager
Kannur

Know your Branch & Know your BanK

Branch Name	**CHITTUR** Br. Code 0016
Date of Opening	20-12-1963
No. of ATM	ONSITE-1
Specialty of the Location	Chittur is a town in Palakkad district of Kerala. Agriculture is the main occupation of the people. Music is the part of the life style of people.' Kongan Pada'is the main celebration here. There is plenty of weavers and spinning.
Nearest Railway Station	Palakkad 16 km
Nearest Airport	Coimbatore International Airport 65 km
Nearest Bus Station	Chittur 1 km
Location of ATM	Main Road, Devangapuram, Chittur

Branch Name	**CHAVAKKAD MAIN** Br. Code 0017
Date of Opening	14-11-1964
No. of ATM	3
Specialty of the Location	Chavakkad is an NRI area. It is an important trading centre for fish and is close to Munakkakadavu Harbour Chavakkad is also famous for its beaches and Azhimokam
Nearest Railway Station	Guruvayoor 4 km
Nearest Airport	Nedumbassery 78 km
Nearest Bus Station	Chavakkad 200 mtr
Location of ATM	H S Centre, EMKE Supermarket T T Devassy Jewellery

Branch Name	**KOCHI- MATTANCHERRY** Br. Code 0018
Date of Opening	05-08-1932
No. of ATM	2
Specialty of the Location	Mattancherry is the erstwhile tradehub. The area is surrounded by backwater of Arabian sea and lots of tourists visits this place.
Nearest Railway Station	Ernakulam –South railway station 9.6 km
Nearest Airport	Kochi- Nedumbassery 41 km
Nearest Bus Station	Bus stand -Cochin 2 km
Location of ATM	Koovapadam, Cochin

Branch Name	**COIMBATORE RAJA STREET** Br. Code 0019
Date of Opening	04-11-1941
No. of ATM	3
Specialty of the Location	Market Area
Nearest Railway Station	Coimbatore Railway Station 2 km
Nearest Airport	Coimbatore International Airport 15 km
Nearest Bus Station	Ukkadam 1 km
Location of ATM	1 Onsite & 2 Offsite (Edayar Street and Ukkadam)

Branch Name	**KODUNGALLUR** Br. Code 0020
Date of Opening	13-04-1971
No. of ATM	2
Specialty of the Location	Near to Famous Kodungallur Bhagavathy Temple, Cheraman Juma Mazjid and Azhikode Beach
Nearest Railway Station	Irinjalakuda 15 km
Nearest Airport	Kochi- Nedumbassery 35 km
Nearest Bus Station	Kodungallur 200 mts
Location of ATM	1 Onsite - Ground Floor, Pavizham Tower 2 Offsite Near Mugal Mall, North Nada, Kodungallur

Know your Branch & Know your BanK

Branch Name	**DINDIGUL** Br. Code 0021
Date of Opening	11.05.1966
No. of ATM	2
Specialty of the Location	Dindigul has a number of historical monuments, the Rock-Fort being the most prominent. Industries include lock making, leather, Textile spinning etc. Thalappakkatti Biriyani is the famous food in Dindigul.
Nearest Railway Station	Dindigul Railway Station 2 km
Nearest Airport	Madurai 88 km
Nearest Bus Station	Dindigul 200 mtrs
Location of ATM	Onsite - Within Branch premises Offsite- St Mary's Building 1 km

Branch Name	**ELAPULLY** Br. Code 0022
Date of Opening	14-10-1970
No. of ATM	Onsite 1
Specialty of the Location	Special food: Ramassery idly
Nearest Railway Station	Kanjikode Railway Stattion 10 km
Nearest Airport	Coimbatore 60 km
Nearest Bus Statione)	Palakkad 13 km
Location of ATM	Elapully Para Junction

Branch Name	**ERODE** Br. Code 0023
Date of Opening	31.03.1965
No. of ATM	1 Onsite
Specialty of the Location	Erode is famous for Power loom textile Products, Handloom Products and Readymade garments, therefore it is known as **"Tex valley of India "**Erode is also known as Turmeric City as it is an important market centre for Turmeric.
Nearest Railway Station	Erode - 1 km
Nearest Airport	Coimbatore – 90 Kms
Nearest Bus Station	Erode - 2 Kms
Location of ATM	Onsite

Branch Name	**ERNAKULAM MARKET ROAD** Br. Code 0024
Date of Opening	10.12.1937
No. of ATM	3
Specialty of the Location	Located in the prime area of Commercial Capital of Kerala.
Nearest Railway Station	Ernakulam Town 2 km & Erankulam South 2 km
Nearest Airport	Nedumbassery 41 km
Nearest Bus Station	KSRTC Ernakulam 2 km
Location of ATM	Onsite: 1 Offsite: St. Teresas College&GCDA Complex

Branch Name	**ERNAKULAM M G ROAD** Br. Code 0025
Date of Opening	13.05.1964
No. of ATM	3
Specialty of the Location	M G Road is the commercial high street with its array of famous Textile shops, Restaurants, Jewellery shops, it is the shopper's paradise of Kerala. M G road is also well known for shopping complexes and multiplex theaters.
Nearest Railway Station	Ernakulam South Railway Station 1.5 km
Nearest Airport	Nedumbassery Airport 40 km
Nearest Bus Station	KSRTC Bus Stand, Ernakulam 1.5 km
Location of ATM	Onsite-1, Off-site- 1. IOC Pump, M G Road, Ravipuram 2. Near Hotel Yuvarani Residency, M G Rd

Know your Branch & Know your BanK

Branch Name	**ERUMAPETTY** Br. Code 0026
Date of Opening	24-02-1971
No. of ATM	2
Specialty of the Location	The branch is near to Sacred Heart Forane Church Erumapetty. In our location there is mixed population. Both NRI, Small local business & Agriculture is here
Nearest Railway Station	Wadakanchery 20 km
Nearest Airport	Nedumbassery 75 km
Nearest Bus Station	Erumapetty, 20 mtr
Location of ATM	Beside the branch

Branch Name	**GOBICHETTIPALAYAM** Br. Code 0027
Date of Opening	16.05.1955
No. of ATM	1
Specialty of the Location	Small local business & Agriculture
Nearest Railway Station	Erode, 37 km
Nearest Airport	Coimbatore, 75 km
Nearest Bus Station	Gobichettipalayam 500 mtr
Location of ATM	Beside the branch

Branch Name	**IRINJALAKUDA** Br. Code 0028
Date of Opening	03-07-1946
No. of ATM	2
Specialty of the Location	Koodalmanikyam Temple which is the only Lord Bharatha Temple in Kerala and the St. Thomas Cathedral, famous for its "Ambu Perunal" are situated in Irinjalakuda.
Nearest Railway Station	Irinjalakuda, 8 km
Nearest Airport	Nedumbassery 38 km
Nearest Bus Station	Irinjalakuda 1 km
Location of ATM	1. Blaze Court, Opp. Boys High SchoolMain Road 2. Abhiman Towers Cathedral Jn, Chanthakunnu

Branch Name	**KANCHIPURAM** Br. Code 0029
Date of Opening	26-10-1966
No. of ATM	4 ATM
Specialty of the Location :	Known as the Temple city of Tamilnadu and is famous for kanchipuram silk sarees. Other major occupation of kanchipuram is Agriculture and Tourism. B Kovil idly is one of the most popular & delecious recipie that is originated from the temple's madapalli.
Nearest Railway Station	Kanchipuram 4 km
Nearest Airport	Chennai International Airport 65 km
Nearest Bus Station	Kanchipuram1 km
Location of ATM	1-Onsite 2 & 3 – Town Bus Stand 4- Near to Sankaramutt

Branch Name	**KANDASSANKADAVU** Br. Code 0030
Date of Opening	22-12-1965
No. of ATM	1
Specialty of the Location	Residential and Buisness Area. Near Kanoli Canal. Every year boat race is conducted during Onam.
Nearest Railway Station	Thrissur Railway Station 17 km
Nearest Airport	Nedumbassery, 50 km
Nearest Bus Station	Kanjany, 2 km
Location of ATM	Attached to bank premises

Know your Branch & Know your BanK

Branch Name	**KANJANY** Br. Code 0031
Date of Opening	27-07-1964
No. of ATM	1
Specialty of the Location	A Houseboat facility available near Manalur company which attract tourists. The famous Avangadu temple is only 4 km away from the branch.
Nearest Railway Station	Thrissur, 15 km
Nearest Airport	Cochin International Airport,Nedumbassery 63 km
Nearest Bus Station	Kanjany, 20 mtr
Location of ATM	Adjacent to the branch

Branch Name	**KANJIRAMATTOM** Br. Code 0032
Date of Opening	1964
No. of ATM	1 (Onsite)
Specialty of the Location	Once known as "Millunkal" as there were huge mills located here in ancient times. Poothotta Backwaters, St. Ignatius Jacobite Church - Built on 1879 by Mor Dionysius Joseph Pulikottil & The Mosque is built in memory of Saint Sheikh Fariduddin.
Nearest Railway Station	Kanjiramattom 2 km
Nearest Airport	Cochin International Airport 48 km
Nearest Bus Station	Tripunithura 14 km
Location of ATM	Adjacent to the branch

Branch Name	**KATTOOR** Br. Code 0033
Date of Opening	20/12/1965
No. of ATM	1-Onsite ATM
Specialty of the Location	Birth House of St.Euphrasia located near to our Branch. Nearest Towns are Irinjalakuda, Triprayar, Edamuttam, Moonnupeedika.
Nearest Railway Station (Distance)	Kallettumkara 16 km
Nearest Airport (Distance)	Cochin International Airport 50 km
Nearest Bus Station (Distance)	Kattoor 10 mtr
Location of ATM	Onsite, facing Irinjalakuda- Kattoor Main Road

Branch Name	**KINATTUKADAVU** Br. Code 0034
Date of Opening	20-12-1963
No. of ATM	Onsite - 1
Specialty of the Location	The main occupation of people in Kinattukadavu is agriculture. Famous Murugan temple in a hill top opposite to the branch.
Nearest Railway Station	Coimbatore Junction – 21 km
Nearest Airport	Coimbatore International Airport-31 km
Nearest Bus Station	Ukkadam Bus stand-20 kms
Location of ATM	Beside branch

Branch Name	**KODAKARA** Br. Code 0035
Date of Opening	20.02.1964
No. of ATM	2
Specialty of the Location	Areswaram Temple is located very near. There is a narrow opening in the rocks near the temple. One has to go squeezing his body between the rocks and to reach the other end is believed to be Punarjani or Rebirth.
Nearest Railway Station	Irinjalakuda Railway Station 7 km
Nearest Airport	Nedumbassery Airport 25 km
Nearest Bus Station	Kodakara 300 mtr
Location of ATM	1- Inside Sahrdaya Engineering College 2- Near Shanthi Hospital, Kodakara

Wedding Bells

Jeffie John Parackal, S/o John Thomas, Senior Gen. Manager - BDD & **Dr. Ansu.**

Ashitha P., Asst.Manager, R.O Pune & **Sudheesh P.**

Sarath Prakash (Asst. Manager, Chelakkara Br. & **Arya Parvathy**

Dijin James, Asst. Manager, HO Personnel Dept. & **Aida Jos**

Shyam Shishir, Asst. Manager RTGS Cell, TBD Ernakulam & **Athira Lal**

James Mathew Branch. Murickassery & **Anumol Joseph**

Krishnam Raju & **Nihaika**, Manager Br. Banjarahills

Dr. Kalyani Prem, D/o S. Premkumar, Chief Manager, R.O. Trivandrum & **Ajithkumar V**

Jishnu P, Asst Manager, Mallassery Br. & **Anjali S.** , Asst. Manager, Athikayam Br.

Karthik Reddy & **Sai Sri Latha**, Manager, Br Tirupathi

Roniya Babu, Prob Clerk, Kozhikode Main & **Tomstoy**

Stella Rani & **Praneeth Navel Roche**, Clerk, Br. Alwal

Jithin James & **Anna Tony**, D/o Alice Pappu, Senior Manager, Personnel Department.

Sabeena M., Clerk, Kozhikode Main & **Sayooj T.**

Greeshma Babu, Clerk, Br. Irinjalakkuda & **Sooraj Varghese**

Illikkal Kallu, Kottayam
Anandu S, Br. Guruvayur

Chandratal Lake (Himachal Pradesh)
Anoop Periwa, Asst Manager
Park Street Br., Kolkata

Chathiath Walkway, Ernakulam
Dijin James, Asst Manager
HO Personnel Department

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