



# CHANGING DYNAMICS – THE ROLE AND ASSOCIATED CHALLENGES OF THE FUTURE BANK

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## INTRODUCTION

A strong and resilient banking system is the platform of a sustainable economy and its growth objectives, as banks play an important intermediary role in the processes between the savers and the investors. In the given circumstances, banks facilitate extremely vital and indispensable service to customers who can be Individuals, Small and Medium sized Enterprises, large Conglomerates, and the Government, who greatly rely on banks in conducting their businesses and other related activities, both at domestic level as well as internationally.

Banks are no exception to the universal phenomenon of “Change”, so that the Changing Dynamics impacting the “Bank of the Future”, run across key areas such as Technology, Customer Behaviour and Regulations etc., as a result the current business models that are in operation and the present shape and landscape of the Banking Industry, will no longer be sustainable into the future, unless altered, modified, changed and improved to meet the order of the day.

The ever changing technological advancements and the customer behaviour, necessitate and compel banks to continuously redefine their behaviours, models, processes and procedures in order to stand the stiff competitions and provide high quality customer service, whilst harnessing all available opportunities to deliver greater performance and value, in an ethical and a compliant manner which is an essential and an integral part of the daunting task ahead of them. In addition, the stringent regulatory requirements too, pose new challenges for banks in meeting their obligations towards the stakeholders, who in turn expect the banks to increase the value of the shareholders, whilst safeguarding the rights of all stakeholders from moral hazard issues and other related risks that may arise when conducting the business of banking.

This article attempts to discuss the role of “The Future Bank” in meeting such challenges and how the banks should prepare themselves and respond to the changing dynamics and the increasing demands by the stakeholders in the evolving environment.



## Technology related changes

With the advancement of technology, banks started harnessing the internet to carry out traditional banking functions such as account opening, fund transfers, remittances etc., expanding the scope of boundaries of banking, which in fact went even beyond geographic limitations and national boundaries. The electronic banking has created more access and entry into business for smaller banks who had their limitations in expanding business in a brick and mortar model, to reach broader segment of customers. Such innovations on e-banking products also facilitated substantial value additions to customers by way of multi-faceted payment channels, payment gateways, mobile appsetc. On the other hand, the usage of “Credit Cards” and “Debit Cards” too have grown in multiple folds over decades, pushing “Cheques and Cash” lower down in the order of choice of modern customers. The Dynamic changes in technology that took effect in the recent past have paved the way for customers through their online banking applications to patronize various banking products and services, some of which are listed below:

- Electronic Utility Bill Payments
- On-line Utility Bill Payments
- Access to Account Statements and Transaction Details.
- Access to multiple accounts and effecting fund transfers
- Access details of accrued interest, cheques and unrealized effects.
- Credit Card inquiries and payments.
- Effecting payment to other bank accounts.

Besides the direct effects of technological advancements, the banks and the industry as a whole, reaped the benefits of high performance analytical tools and software, which enable actionable intelligence to be used on vast volumes of data available in bank’s data bases, in order to serve customer needs more effectively and efficiently, at multiple delivery points in the value chain.

However, there is a down side as well, of the dynamic changes that took place in the industry of banking and finance. Advancement of technology did not come at no cost or low cost. It creates a heavy burden on the Profit and Loss Accounts of banks and financial institutions. Despite such burdens, the banks which acknowledged the fact that they had no option but to adapt themselves to evolving technological changes survived, whilst others who did not adapt have already paid or will be paying a price before long, for not being proactive and thus might fall by the way side in the forward march, amidst stiff competition.

## Future will be an Era of Digital Banking – The success story of Starling Bank

An era of “Digital Banking” has already begun. Starling Bank is an example of a digital bank which has set on its operations enabling the customers to manage their current accounts



on the mobile phone. The model of the said bank reflects how customers and technology has changed and taken a different shape. It is a customer-centric business model, which facilitates usage of Debit Cards, Apple Pay, Standing Orders and Direct Debits on faster payment channels.

As per Boden, the CEO of the UK based Starling Bank, “they collect lots of information around the customer’s transactions and believe that data is owned by the customer and the customer should have access to such data and be empowered to use it for their own benefit. They put such belief into practice by using machine learning and artificial intelligence that looks at such data to provide insight to the user on how he or she is spending money, enabling them (customer) to make better financial decisions and get the best for their money”.

The business model of the Starling Bank is to provide free current accounts enabling its customers to use the Bank database to find other service providers to get at the best Mortgage Loan, Savings Product or Personal Loan, making the Starling Bank an open market place, where customers can purchase banking products without having a Financial Advisor, at no cost or relatively a marginal cost.

This is a business model somewhat similar to the model adopted by Fintechs. Fintech Sector could provide financial solutions and banking services at a lower cost compared to the costs incurred by traditional banks, mainly due to the fact that Fintechs are free to innovate with relatively less regulatory limitations. Today the customers are shopping differently by using Amazon, Pay Pal etc. but the banks as a whole, though they are heavy users of technology, have still not configured themselves adequately and effectively, to meet the needs of the present and future tech savvy customers.

Accordingly, it is imperative that the future banks will have to cater to the customer wants, the failure would threaten their survival.

In establishing a Digital Bank, one has to unlearn and forget a lot of what one knows about banking as quoted by Boden. Though it may be perceived that deliverable systems are all about off-shoring and outsourcing with a huge investment, in the Starling Bank business and IT model, it is all about having integrated teams. Starling Bank does not have a separate IT Department, instead Technologists, Engineers, Finance Professionals sit with one another to build the technology, using a synergetic approach, which is a novel but somewhat difficult engagement model to be practiced, until you align your mindset. As per Boden they listen to customers and build customer centric software, as there seems very little else in between, because customers and their needs are changing and they (customers) are wanting more. At the same time, technology too is changing fast, which paves the way for new entrants like “Starling” who could enter the market place with disruptive innovations and completely different business models.

It had been a three-year journey for the Starling Bank to open its doors in the App Store and Google Play Store. Having started work in 2014, they had obtained the banking license in 2016 and gone to work with a limited number of customers in 2017. However, it is now



reported that few thousand people a week are signing up and most of them belong to the age group of 20s and 30s, whilst few people who are in their 90s too, do sign up with them. As per the banking license, Starling is a traditional bank, in terms of regulations, capital requirements and consumes protection measures.

The biggest advantage in a model similar to the Starling Bank model is the creation of a market place, which offers space where a large number of different products would co-exist together, to serve the customer needs more efficiently. It is a great platform for cross-selling and upselling of other products, thus a synergetic approach for a win-win situation with outsider product owners ensuring the success of the business model. Given that the said characteristics of the business model have turned it into efficient one, and the investors too are reported to be very much pleased an excellent return on equity has been ensured.

All in all, technology has been the key to the success of Starling Bank, despite its modest size with around 110 employees. Boden claims that Starling can deliver far more, quicker than any other traditional bank, thanks to technology. She also adds that Starling is showing all the features of high growth business and describes her organization as a Tech Company, A Bank and a Market Place.

There are very valuable lessons traditional banks can learn from Starling Bank, if they are keen and interested in re-directing and re-shaping their business models and approach, in today's environment, where change is happening very fast and new challenges are evolving in the industry of Banking.

## **Artificial Intelligence (AI) in Banking**

The mankind has gone through three industrial revolutions and is presently in the process of developing on the fourth industrial revolution, stemming from the third revolution which introduced usage of electronics and infrastructure technology to automate production. Fourth is a digital revolution, which is evolving at an exponential speed, disrupting almost all industries throughout the globe, thus Banking Industry being no exception.

The fourth industrial revolution is running across the industrial world, transforming the Systems of Production and Services, Management Models, Governance regimes etc., challenging the business leaders than ever before, compelling them to gear up and prepare organizations ready for the fourth industrial revolution which will compel involvement of all industries, including "Banking". Any organization embracing digital revolution will not only have to deal with Gen X, Y and Z, but would be facing the challenges of Artificial Intelligence (AI) as well.

Artificial Intelligence is Intelligence displayed by machines, in contrast to the natural intelligence displayed by humans. Artificial Intelligence is based on theory and development of computer systems enabling machines to out-perform tasks normally requiring human intelligence such as visual perceptions, speech recognition, decision making and transactions between languages.



## Can the machine with AI and Robotics, replace the Bank Employee?

Advanced machines with AI, which can also be named as Robots may effectively analyze very complex data, and use advanced computer vision to inspect work and carry out evaluations and make business decisions, but the human touch cannot be totally dispensed with, due to the flexibility required particularly in highly sensitive customer relations and customized decision making, where refinement in measurements, calculations are involved. On the other hand, manual dexterity and knowledge would be of paramount importance, coupled with social intelligence, spiritual intelligence, psychological intelligence, political intelligence, emotional intelligence blended in the right proportions to closely manage Robots.

In the given circumstances, days would not be very far when more dynamic human-robot joint teams would be managing Banks to deliver supreme quality customer service, whilst attempting to increase the value of stakeholders in every respect. Robots and Humans would be asking each other for advice, towards generating better results.

### Way forward for Banks moving towards AI and Robotics

If a Bank intends to initiate robotics, AI strategy preparation towards same is extremely important. Initially, you need to set out the AI vision of the Bank and then ascertain as to what you hope to achieve using Artificial Intelligence and Robotics. Thereafter you need to drive a clear understanding about processes to be covered, with awareness of the building blocks which should be put in place first.

After the above planning process, you need to automate the data collection process on a real time basis. This will help avoidance of repetitions of large amount of data currently being collected manually. This process of automation will also improve the quality and accuracy of data. If you do not automate the data collection process, it will not be possible to operationalize the process and also to sustain successful implementation. All in all, Banks will need the right resources, right processes and quality data with high integrity, to ensure success in Artificial Intelligence and Robotics.

The “Future Banks” should therefore pay attention on the following steps in their journey towards reaping the benefits of AI.

- (i) Need to understand the processes

AI is heavily dependent on clear instructions, the quality and integrity of data and also the comprehensiveness of data.

- (ii) Need to have data neatly stored in a retrievable manner.



You need to pay emphasis to understanding data flows and have such data stored in a way that same could be effectively retrieved and re-used in the future, as and when the needs arise.

- (iii) Should not wait till the last minute to hire AI. You should start using various tools that are being introduced by companies exploiting AI to solve problems.

## **Blockchain Technology as a disruptive innovation in Banking**

Blockchain is the most innovative new technology in the field of business administration, which will certainly reshape Banking and Finance in the years ahead, towards new dimensions.

In other words, Blockchain is a digital database recording that facilitates transactions. A few examples would be Cryptocurrency (eg. Bitcoin), Property Titles, Contracts, Ledger Transactions etc.

Instead of keeping separate ledgers and transaction records, the Future Bank may record their transactions directly into a joint register, creating an interlocking system of such transaction records, where all such entries will be cryptographically sealed, thus falsifying such transactions to conceal activity would not be possible.

With the Blockchain technology, Banks and Business Entities as a whole could benefit in many ways, as standardization would facilitate verification of large volumes of important data automatically.

Reconciliation would be quicker and cheaper, saving time and money for the Auditors and Finance and Banking Professional to spend more time on qualitative aspects such as predicting future Risks, Market Behaviours, Governance Vulnerabilities etc.

Blockchain can be gradually integrated with the Accounting, Finance, Risk and Audit regimes, covering the aspects of securing integrity of records leading to complete "Audit Trails".

It can also be used for algorithm driven decision making in many business areas, including the Prevention of Money Laundering, Combating Financing of Terrorism and various other complex financial transactions as well, that involve many parties. However, as mentioned in a recent Harvard Business Review, such an additional level of integration may be a decade away from now on.

With the development of Blockchain when it becomes more common in business of Banking, the departments such as Finance, IT, Procurement etc. will have their own applications of Blockchain and Banks may use cloud-based Blockchain services, as opposed to their individual servers, which would save time, money and will bring soothing solutions for smaller banks, who



may not have the expertise and required capital to develop their own technology.

## **Emergence of Virtual Currencies and Associated Risks**

In the recent past there had been increasing focus on virtual currencies, after their development from cattle to cowrie shell to electronic currencies. A virtual currency is a digital representation of value which can be traded on the internet. It bears the usual characteristics of a real currency and functions as

- a) A medium of exchange;
- b) A unit of account; and
- c) A store of value, but does not have legal tender status in any jurisdiction

Virtual currencies are catching up the momentum and are increasingly becoming popular, thus capable of creating a significant impact on the “Future Bank”.

There are three basic categories of virtual currencies known as Closed Flow, Open Flow and Hybrid Flow virtual currencies.

### **Closed Flow Virtual Currencies**

Closed Flow Virtual Currencies cannot be directly purchased using a real currency and can only be used to purchase virtual goods and services. eg: Tokens purchased for video games or tokens used at Casinos.

### **Open Flow Virtual Currencies**

Open Flow Virtual Currencies, on the other hand can be directly purchased with and sold for real currency. It can be used to buy or sell real as well as virtual goods and services. Open Flow Virtual Currencies are the most commonly used type, which is more vulnerable to the risk of Money Laundering (ML) and Terrorist Financing (TF), in comparison to other categories of virtual currencies. The most prominent example of an open flow virtual currency is “Bitcoin”. Bitcoins are mathematical tokens comprised of unique strings of numbers and letters that constitute units of the currency and have value, only because the Bitcoin community decides the value of Bitcoin. Bitcoins are digitally traded among users with a high degree of anonymity and can be exchanged into any fiat (real) or virtual currencies.

Open Flow Virtual currencies can be further categorized into two types, based on the controlling authority. When a single administrative authority controls the system they are known as “Centralized Virtual Currencies”. The issuance of the currency and establishing rules that govern the currency is handled by the said administrative authority. The exchange rate of the virtual currency with the fiat currency is determined either through demand and supply of the virtual currency or using a pre-determined fixed rate.



The other category of virtual currencies under Open Flow Virtual Currency is known as “Decentralized Virtual Currencies”. Such currencies do not have a central administrative authority, to issue and control the behavior of the currency. The money supply of the currency is pre-determined by a mathematical algorithm and the new units are created through a process called “Mining”.

“Bitcoin” and Litecoin” are examples of decentralized virtual currencies. There is no single authority controlling this category of currencies. Money supply is determined by an algorithm and the users collectively verify the legitimacy of the transactions.

### **Hybrid Flow Virtual Currencies**

This category of virtual currencies can be directly purchased with real currency and can be used to acquire real goods and services as well as virtual goods and services. However, they cannot be readily sold for real currency.

As this category of currencies can be purchased by using real currencies and can be exchanged for real as well as virtual goods as services, there is a high tendency for them being used for Money Laundering and Terrorist Financing.

### **Operation of Virtual Currencies**

Operations of Virtual Currencies involve four parties namely Exchange, Administrator, User and The Onion Router.

Exchanger is the person who is engaged in the business of exchanging virtual currencies. Administrator is the person or the entity engaged in issuing virtual currencies who also has the authority to withdraw them from circulation. User is the person or entity who obtains virtual currencies and use them to purchase virtual or real goods and services. The Onion Router is the underground distribution network of computers on the internet which conceals the real IP addresses, thus hide the identities of the users by routing transactions through web-based computers around the globe. Such arrangement makes it extremely difficult for any investigator to physically trace and locate the computers hosting or accessing websites on the network.

### **Risks associated with Virtual Currencies**

The usage of Virtual currencies is more cost effective, as the transaction cost is relatively cheaper, especially in comparison to online payment channels.

The main risk associated with the virtual currencies is the Money Laundering (ML) risk. Anonymity is the main cause for same, thus virtual currencies are currently used for illicit transactions such as dealings connected with drug trafficking, human trafficking and in connection with other listed predicate offences under Money Laundering .



In order to mitigate such ML/TF risks, the Banks should pay due attention to following factors.

- Identify the level of usage of virtual currencies.
- The potential growth and the specified regulations.
- Developing typologies and counter typologies to combat ML/TF

The revised recommendations of the Financial Action Task Force (FATF) emphasizes a Risk Based Approach (RBA) with regard to the new developments in virtual currencies. The overall aim of the FATF recommendations is to establish a common principle, leading towards a sound ML/TF regime.

## **Entry of Fintechs into Remittance and Money Transfer Businesses and its impact on Banks**

Fintech have come into the business of money remittances. They offer services to their clients, enabling them to transfer money, pay utility bills and make and receive payments such as insurance premiums, subscriptions and membership fees to professional bodies and charitable donations etc.

As there is a significant difference between the level of KYC held by Fintechs, as opposed to the KYC held by Banks, same could create uneven playing fields, as a result of which Banks can be at a certain disadvantage and could trigger issues from a view point of competition and more importantly could lead towards some vulnerabilities that can facilitate Money Laundering and Terrorist Financing Risks, which should merit the attention of Regulators and law enforcement agencies.

Such vulnerabilities and risks of ML/TF would arise due to the nature of the model under which remittances and money transfer businesses are handled by Fintechs. Under such models, the risk of anonymity of the remitter could be prevalent, in instances where the actual user of the mobile service differs from the initial registered owner, since a customer can obtain many mobile connections and transfer such connections without informing the service provider. Also, the fact that the electronic character of mobile technology can make transactions more rapid and easier than the cash transactions, same also would contribute towards increasing ML/TF risks, in general.

However, on the other hand, elusiveness in mobile money transactions are far lower than that of cash transactions, as the beneficiaries are more easily traceable under mobile money transfer systems. Also the mobile operators offering mobile money services are regulated, though not to the extent of Banks, either indirectly through a partnership with a Bank or by registering them as a license holder of payments, whereas the cash economy is comparatively lacking oversight.



Accordingly, one has to appreciate the fact that Fintechs entering into traditional Bank businesses, on which the Banks had a monopoly, would be a definite concern for Banks, nevertheless unavoidable, in the light of technological advancements running across the industry. On the other hand, such initiatives significantly support “Financial Inclusion”, which comes as a priority in economies of the developing countries.

In the given scenario what the Banks should do is to innovate their systems and business models to meet such challenges, rather than cursing and turning a negative attitude towards new developments.

## Conclusion

Change is inevitable. World is changing thus Banking and the banking industry too have to change. The speed at which the technology is changing and the evolvement of regulations to keep pace with the drastic changes taking place in the landscape of Business of Banking, coupled with the ever changing demanding nature of the modern customer behavior, compels the Banks to think out of the box and come up with innovative business propositions, if they are keen to continue as a formidable force in the prevalent vibrant economic conditions and to sustain their positions in the digital world.

Banks on the other hand have survived several financial crisis and remained powerful to-date, mainly due to the proactive manner in which they have acted, though they may have lost a certain share of business to Fintechs and other competitors.

The way forward will be a visionary change, which the Banks, together with regulators need to embrace and embark in search of greener pastures.

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