

Digitization in Banking

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Abstract

Three decades back with the introduction of technology in banking sector it was a revolution but when we see it from current perspective it feels so ancient and archaic. Because, call centre was a big thing at that time and soon the call centres will be gone, now we will be talking about bot centres. At that time in India, where most of the people don't even have phones, and the customers who have phones were initially refusing to talk to the call centre. And now, if we see, we are moving toward more or less branchless banking, very heavily technology-oriented banking. Let's say very advanced than what it used to be three decades back. So, again, going back to the initial statement, we feel archaic in the current day and age.

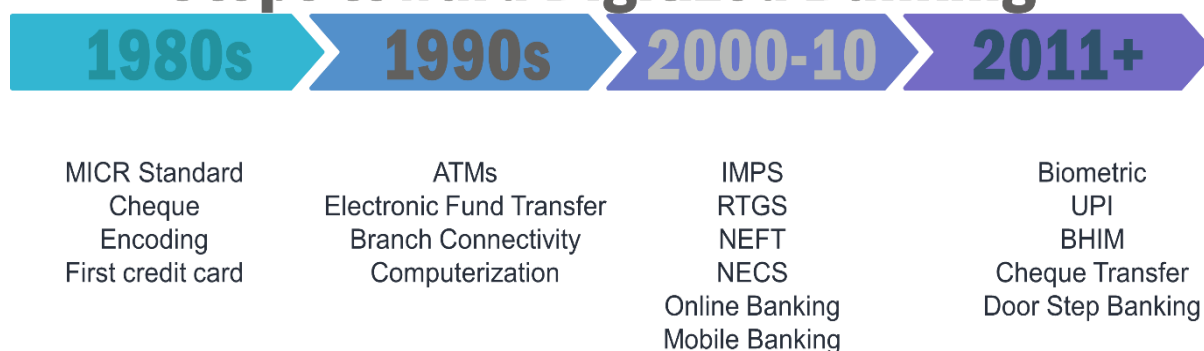
Key words: Digitization, Artificial Intelligence, Satisfaction, Information Technology, Digital Currency

Introduction:

Today brick-and-mortar branches, ATMs, contact centres do still exist but they are rapidly getting superseded. In fact, people started questioning whether they really need the Brick-and-Mortar branches. Digital touch points are bringing in a very big change, now over the last five years we have witnessed dramatic changes in the customer behaviour and preference patterns. Bulk of transactions today go through the digital channels and the mobile

phone is becoming the single most important device which is revolutionizing the way we live in today's world. And with the Millennials coming into the consumer landscape the preferred way of banking is changing, to the preferred way of doing banking also has to adapt and that is where newer technology AI is getting adopted in the banking world. If we look out there are four different cascading effects that we can readily see:

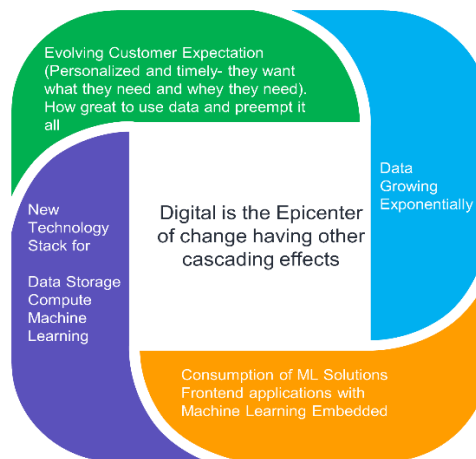
Steps toward Digitized Banking



Reasons for digitization

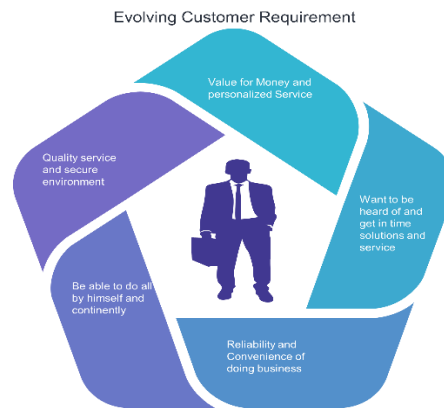
When we say there's a consumer mindset shift, consumers now expect more personalized and timely treatment, therefore Banks have to change the pattern in which banks approach their customers and interact with their cost. Simultaneously data is growing at an exponential level and that has been one of the major areas and one of the major enablers for ML and AI to come into. As data is growing exponentially it is becoming more and more difficult for our legacy storage computation and tooling

strategies to keep pace. So they are falling short to address this and therefore the new requirement for the front-end solutions are changing in the last five years. If you look at it the way the front-end solutions have been developed in banking have changed in terms of how they've been reaching out to customers and that is again been one of the areas of how ML and AI is getting used.



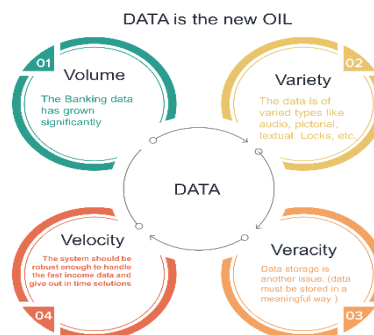
The evolving customer experience: The heart of it all is the customer, the customers' expectations and the customers' requirements. If you get your customer experience right, this becomes the winning strategy in a very competitive marketplace. Customers have more personalized requirements and therefore require more personal treatments, the reason why that customer delight happens is because the way you communicate, personally relevant and that communication was timely so therefore it is important to have your communication very personally relevant and timely. For

that it is equally important to know your customers. Today's customers wants a personalized treatments, but they want to be heard also, they want quicker turnarounds, they want seen, they want to seamlessly manage their financial needs and they want to make the most out of their mobile and digital journeys. Therefore if you have to cater to all of those things then the way you've done things traditionally does not really cater and therefore your solutions have to be very different. That is where ML and AI is making a very big difference.



Growing DATA: Data is growing exponentially. To tackle this data there are different algorithms that that you require and this data is also supplemented today by a lot of different unstructured data. If you think of it you had your legacy systems but now you're getting much more

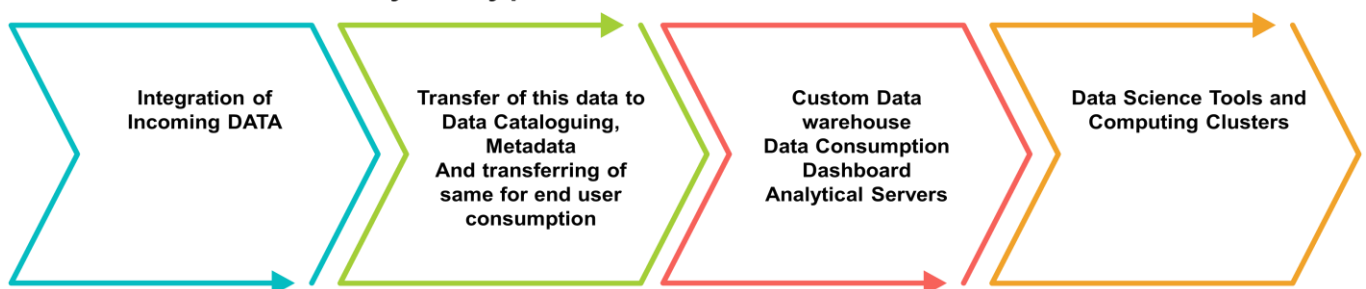
digital data you're getting chat and call data you're getting audio voice data you're getting data from surveys feedbacks and images add to that data from your social media feeds like Twitter Instagram and Facebook.



New Technology stack: In order to be able to do that your storage computation etc. is falling short. Therefore, you need much higher compute and much more much better tooling strategies and that is

the reason why cloud strategies are becoming so important. Open-source tools like like Python etc. are getting used because they can handle plethora of algorithms.

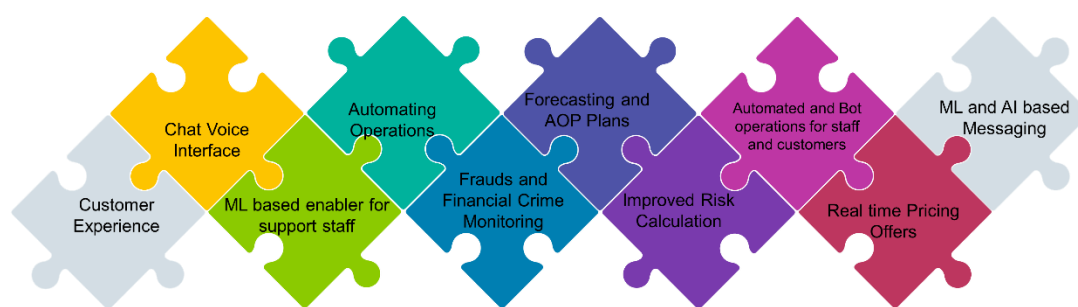
Anatomy of typical Data Science Architecture



Introduction of ML and AI: Fraud risk, financial crime, compliance or areas where you can use things like network signs to actually figure out suspicious transaction trends and the other thing that is becoming very important. Conversational banking particularly in customer service is one area where chat bots are getting adopted as very good AI solutions in the market today. A lot of robots are coming into branches and

you see these are very cool applications. And the final area that I really want to touch upon is banking operations and that is getting much more streamlined by the use of things like optimal optical character recognition or routing of calls complaints chats for the right resolutions using reinforcement learning and the likes of it. So those are some of the usages of ML.

Artificial Intelligence and Machine Learning getting used in a broad spectrum of banking

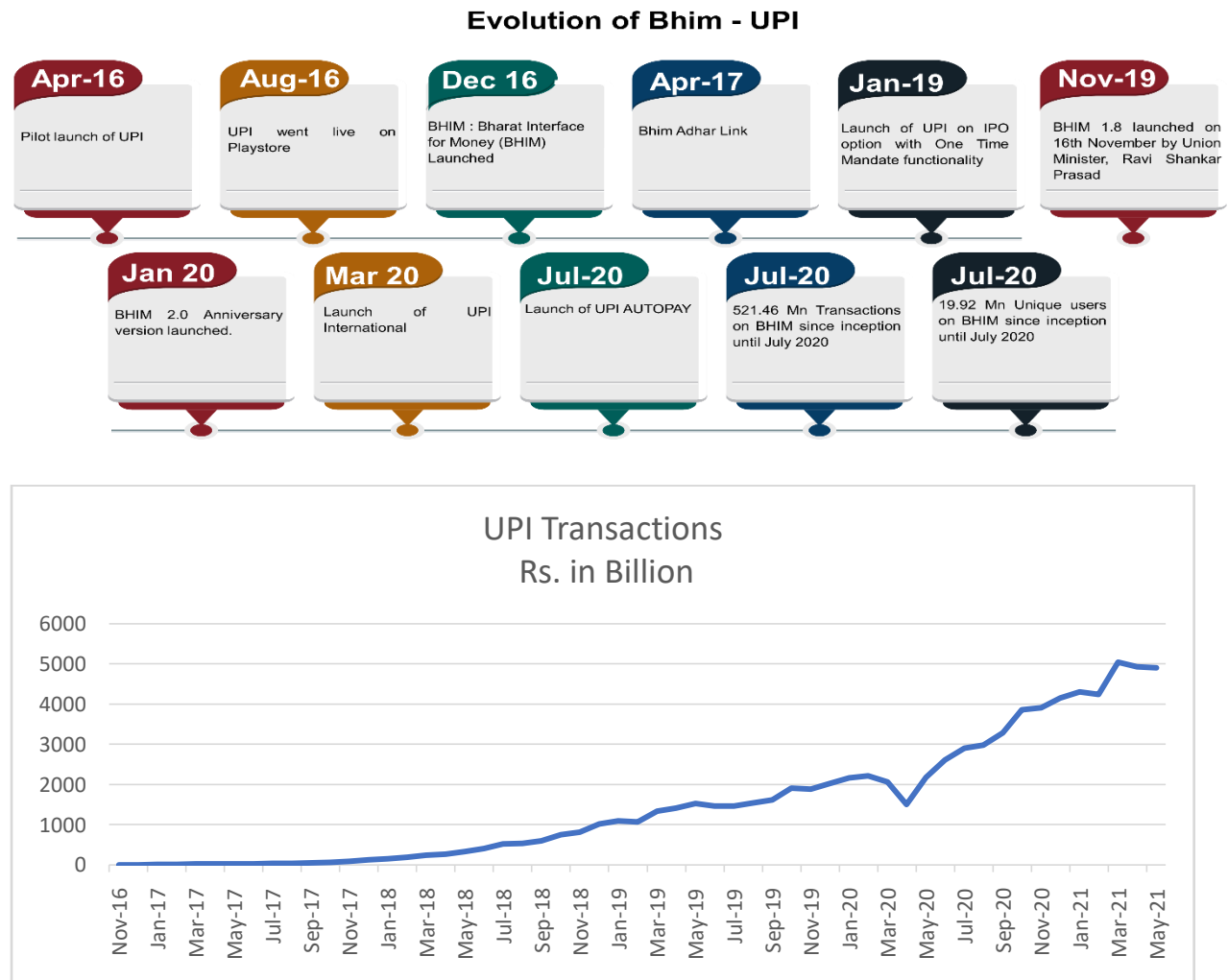


DIGITAL REVOLUTION: FINANCIAL INCLUSION

So, the banking or the banking system is like, a common system being utilized by a number of small FinTech start-ups, they promise an account to be opened in less than five minutes, they can get your loan in less than an hour. All these were unheard of. Now, these people are nimble and fast. It's like, you have a big aircraft carrier, navy ship, which takes some time to move around because it has to change course, it takes a long radius do that. In addition, these people are the street boats, which can really move very fast and move in a direction that they want. And they can be multiple of them. That is going to lead to financial inclusion because they are now

using mobile as a way of banking people. Moreover, your mobile number is your banking number, is your bank account, because, and only for 4 million people out of 36 million people are banked but 26 million people actually operate on mobile. Therefore, you can see the financial inclusion that's happened there. And you see India or the world moving towards a cashless economy, I don't think cash will survive long, since every transaction can be monitored, sooner than later, cash will disappear. And in India the way things are moving I wouldn't be surprised the next few years things will change completely.

As an example, here is a trend on UPI its growth in terms of usage and in terms evolution



Game changer: FinTech

FinTech are the next evolution of the banking system. The operating models of the traditional banking system still have many flaws and inefficiencies present. It is being addressed and eliminated with the help of FinTech. The major inefficiencies or limitations that FinTech are looking to address are:

1. Paper heavy processing
2. Maintaining physical branches
3. Complex processes involved with traditional banking products
4. Cumbersome online mechanisms

5. Statutory requirements for traditional banking

Every part of the banking value chain - from what consumers can avail and expect in terms of banking services - can be provided by a non-banking service provider through technology and lean and agile business models. FinTech are also looking to leverage agile and lean business models to deliver faster services at a much cheaper cost. FinTech are disrupting the banking industry and competing with

traditional banks across the entire banking products and services spectrum.

FinTech are mostly running on a Banking as a Service model. There are mainly 3 different types of FinTech.

1. 1. Nonlicensed Fintech platforms that provide banking services in partnership with a traditional bank.
2. 2. Traditional Banks launching their own FinTech initiatives which are digital-only.
3. 3. Fully Digital banks with a digital banking license.

The major advantages that FinTech have over traditional banks are:

1. Enhanced and Seamless Customer Experience Automated Services resulting in faster turnaround times
2. Transparency in costs and charges Ease of usage because of concentrating on making the online experience as easy as possible
3. Leveraging technology at a deeper scale Better accessibility, Anytime, Anywhere

The potential for neo banking space in India is immense. This is mainly because of several long-term drivers including:

1. Rising number of online transactions particularly through UPI and rise of the digital economy
2. Increase in mobile and internet penetration
3. Large sections of the population that are underserved in banking
4. FinTech not only has potential in retail banking but also in the SME lending space, which is still underserved by traditional banking.
5. Big potential for leveraging technology in the enhancement of operating processes in all banking mechanisms.

These reflect that FinTech's future is bright.

Upcoming Plan: India's own digital currency

Major central banks across the globe are not in a hurry to roll out digital currencies. Just after the Reserve Bank of Australia Governor Philip Lowe rejected any strong need for the same, the Reserve Bank of India Governor Shaktikanta Das raised concerns related to cyber frauds in launching virtual currencies. Let's delve into the concerns that he raised. Major concerns speaking at a post-monetary policy press conference on December 9, Das said that main concerns around launching the central bank digital currency are from the angle of cyber security and the possibility of digital frauds. These currencies require robust systems that to deal with malaise attempts, he added. Earlier in July 2021, the Reserve Bank of India had said that it was working towards a phased implementation strategy for a digital currency and was examining whether digital currencies should be used in retail payments or also in wholesale payments. Meanwhile, Lowe stated that there was no strong need for digital currency, even as he cautiously welcomed the possibility of the creation of the same. The remarks came a day after Treasurer Josh Frydenberg's said that the Australian government was mulling a digital currency as part of an overhaul of the payments system. He also mentioned that is not obvious that a digital currency would be a solution to any particular problem or that there would currently be a significant demand for one. CBDC, a central bank digital currency is a sovereign currency in an electronic form. It would appear as a

liability on the balance sheet of a central bank. These digital currencies could be designed for use either among financial intermediaries only or by the wider economy, according to the report. Conclusion- While the concerns raised are reasonably sound, CBDCs are a step towards future.

Conclusion: Millennials and Gen Z'S are Changing Banking

The new generation or as you say millennials and gen Z's are more tech oriented. The good thing is with these customers we is that we don't need to educate them about new advancements, new apps, new platforms. On the other hand, a bank with slower server or leggy user interface will have to face the consequences ether it will change or it will be eroded off. Second very interesting point in millennials is that they are also looking for a social angle to whatever you're doing. They are not going to be associated with the premium banking customers and which was like, pampering the guy because he's got tons of money. They are going to look at what is my organization, where I'm banking, in terms of pollution, climate, action, CSR, all those kinds of things, and that's going to get them customers. So the banks also have to change in that front. Because there's a much larger agenda that appeals to the people in millennials compared to our generation.

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