FUTURE READY TALENT

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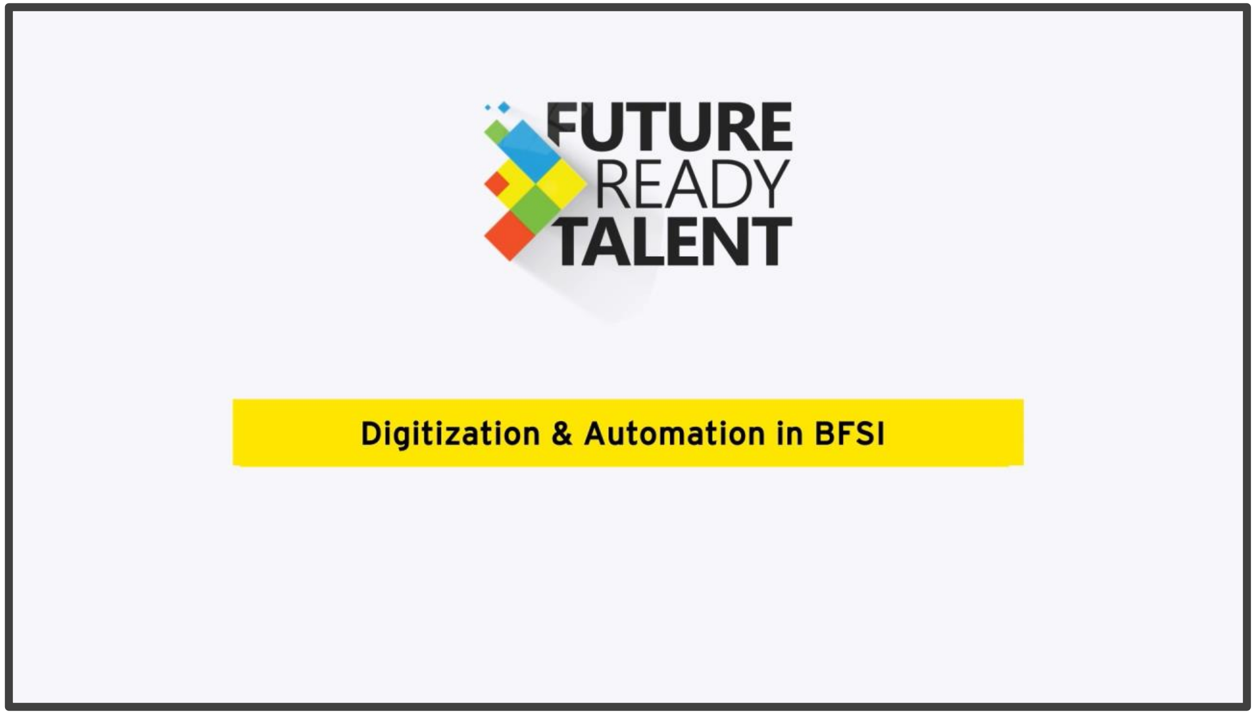
EY Building a better working world

Digitization & Automation in Banking & Financial Services Industry

Hi, In this discussion, we will look at how **Microsoft Azure** is enabling automation and business transformation in BFSI industry.

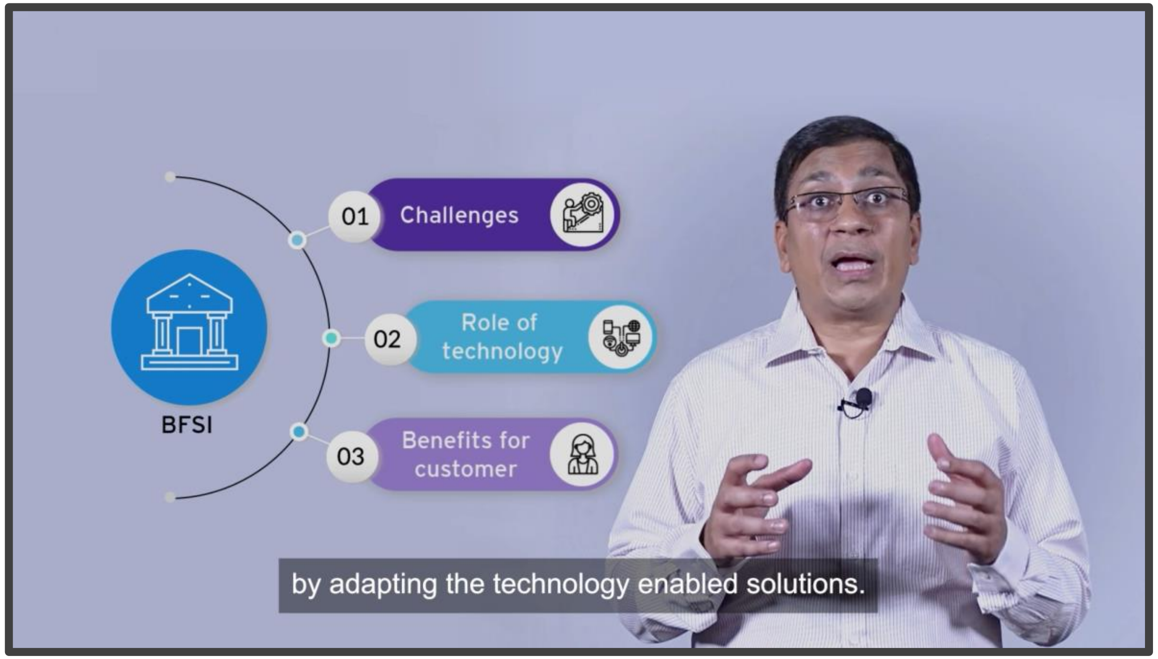


FUTURE READY TALENT

Digitization & Automation in BFSI

Digitization & Automation in Banking & Financial Services Industry

BFSI, that is Banking, Financial Services and Insurance includes banks – ranging from large state owned and private banks to local, small co-operative banks


BFSI
01 Challenges
02 Role of technology
03 Benefits for customer

by adapting the technology enabled solutions.

Digitization & Automation in Banking & Financial Services Industry

BFSI, that is Banking, Financial Services and Insurance includes banks - ranging from large state owned and private banks to local, small co-operative banks;

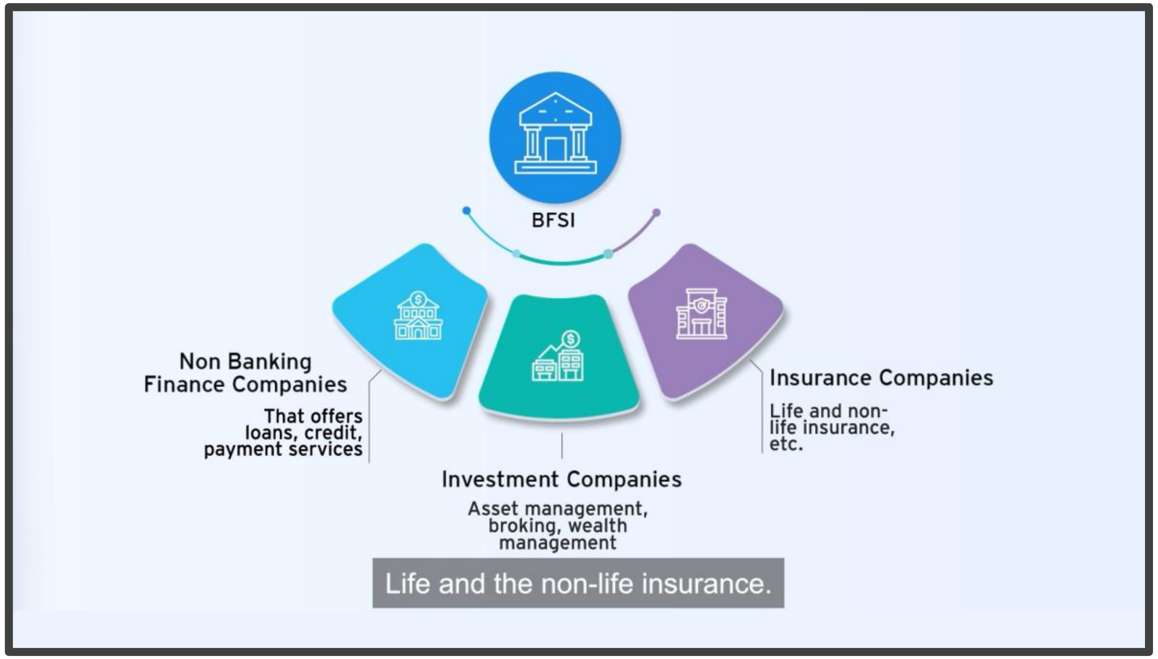
Banking
Financial services
Insurances

and Insurances as well.

Digitization & Automation in Banking & Financial Services Industry

Non-Banking Finance companies – that offer loans, credit, payment services; Investment companies – Asset Management, Broking, Wealth Management, Investment Banking; Insurance companies – Life and non-life insurance; etc.

Financial Services sector plays foundational role for any economy as it channels the funds for growth of all other sectors; helps them optimally manage their surplus and to cover their risks.


BFSI
Non Banking Finance Companies
That offers loans, credit, payment services
Investment Companies
Asset management, broking, wealth management
Insurance Companies
Life and non-life insurance, etc.

Life and the non-life insurance.

Digitization & Automation in Banking & Financial Services Industry

Digitization & Automation in BFSI - Current state

Digitization & Automation in BFSI - Current state

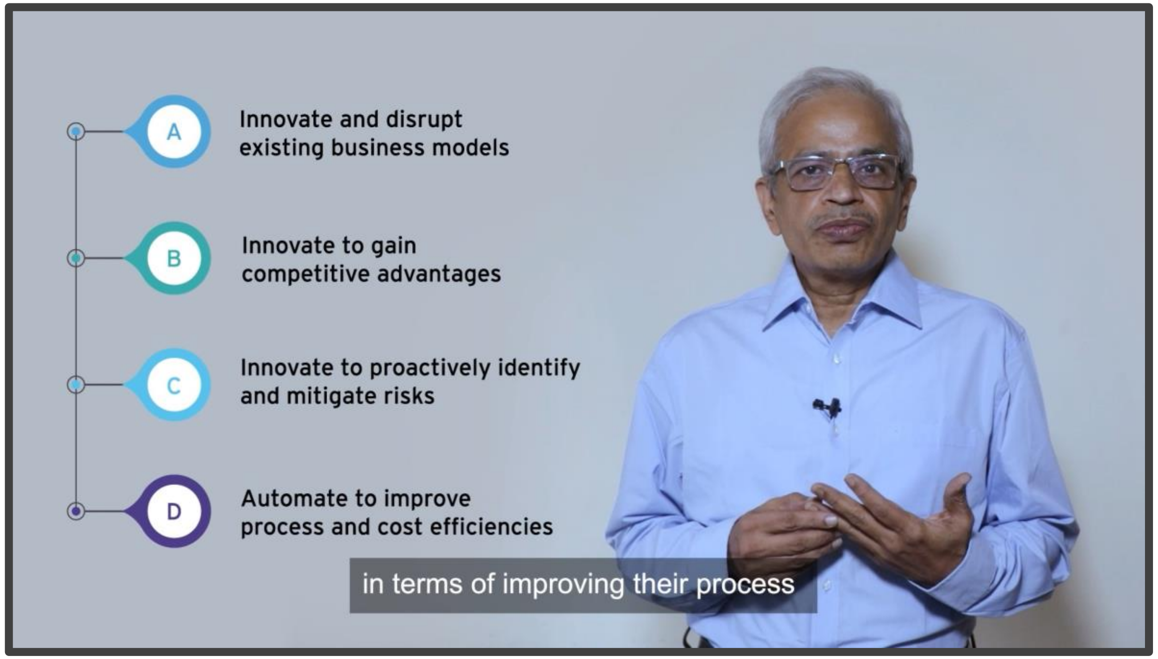
Digitization & Automation in Banking & Financial Services Industry

Digitization & Automation in BFSI - Current state – **Rakesh Vajpai | Industry Expert Fin-Tech**

Rakesh Vajpai
Industry Expert - FinTech
to innovate

Digitization & Automation in Banking & Financial Services Industry

Financial Services sector is one of the early and leading adaptors of Microsoft Azure, not only in India but across the globe. As you would know, most of the financial services consumed by us do not require us to go to a bank or an insurance company's branch. We can avail of these services online, for example online payments, buying and selling shares, mutual funds and insurance policies. Several of these companies and service providers use Microsoft Azure services as their digital backbone.



A Innovate and disrupt existing business models

B Innovate to gain competitive advantages

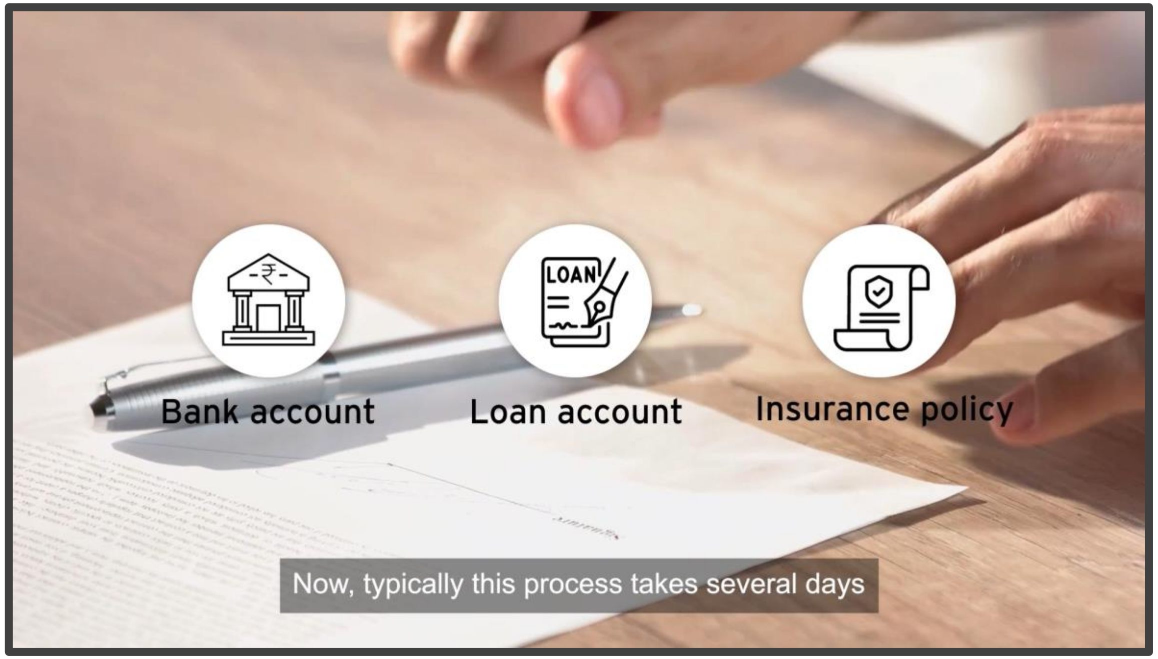
C Innovate to proactively identify and mitigate risks

D Automate to improve process and cost efficiencies

in terms of improving their process

Digitization & Automation in Banking & Financial Services Industry

So, let's take one example let's say its a bank or an insurance company it’s very important for them to acquire a customer could be a new bank account to be opened or loan account to be created or new insurance policy to be created.


LOAN
Bank account
Loan account
Insurance policy

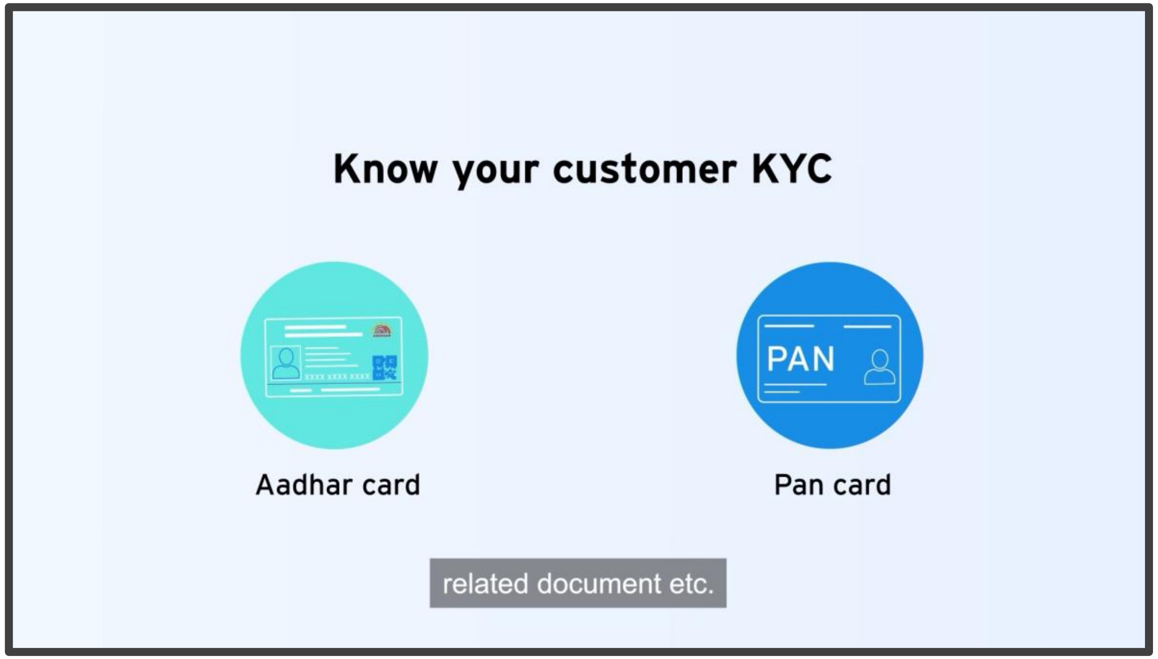
Now, typically this process takes several days

Digitization & Automation in Banking & Financial Services Industry

Now, typically this process takes several days

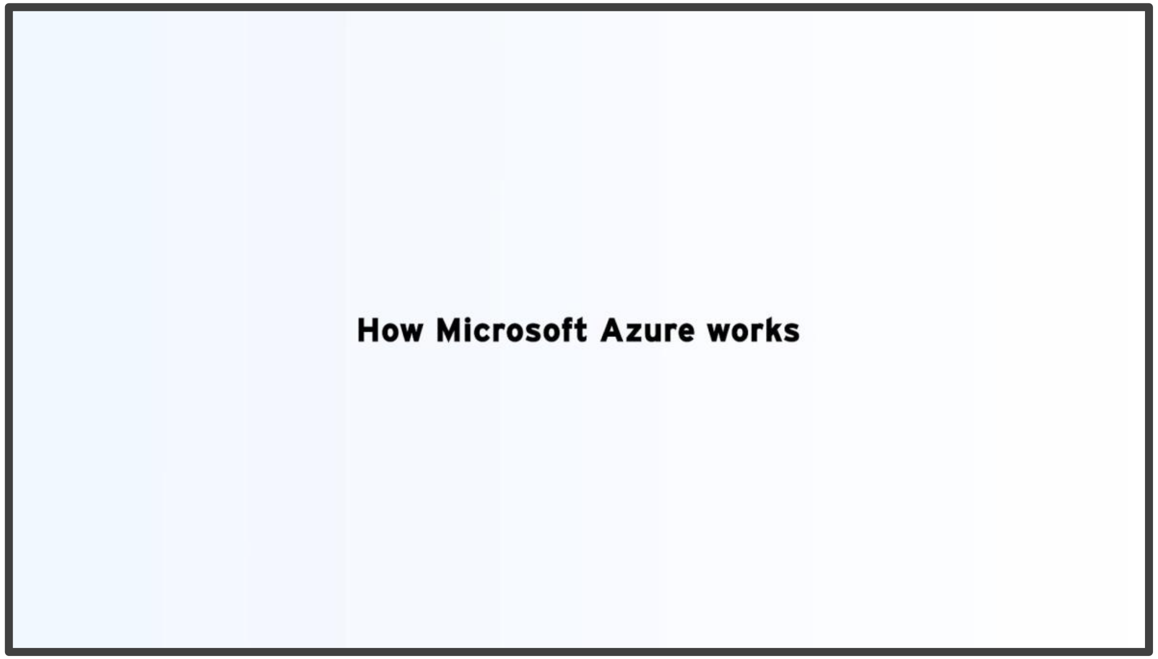
Why?

because you have to not only collect the details of the customer get them to fill the form etc. But also you need to take a lot of there documentation also with you which is required from regulation point of view you need to have what is known as "Know Your Customer" KYC. And you need to have their details these could be Aadhaar card, PAN card, address proof, there date of birth, related document etc.


Know your customer KYC
PAN
Aadhar card
Pan card
related document etc.

Digitization & Automation in Banking & Financial Services Industry

Let's say the customer and the sales representative are meeting with each other right while they are meeting the representative takes the photograph of the customer on his mobile phone. and also it takes the images of all the document that need to be submitting for example PAN card, Aadhar card, etc.


How Microsoft Azure works

Digitization & Automation in Banking & Financial Services Industry

The representative sends the details directly online to a service in Azure. It would scan all of these documents and it will extract the text out of it. through optical character recognition.

01
KYC
Sales representative takes images of KYC documents
right while they are meeting

Digitization & Automation in Banking & Financial Services Industry

The moment that is done the system is able to read what is there in those documents and they are able to understand the data related to each document.

02
OCR & VISION AI

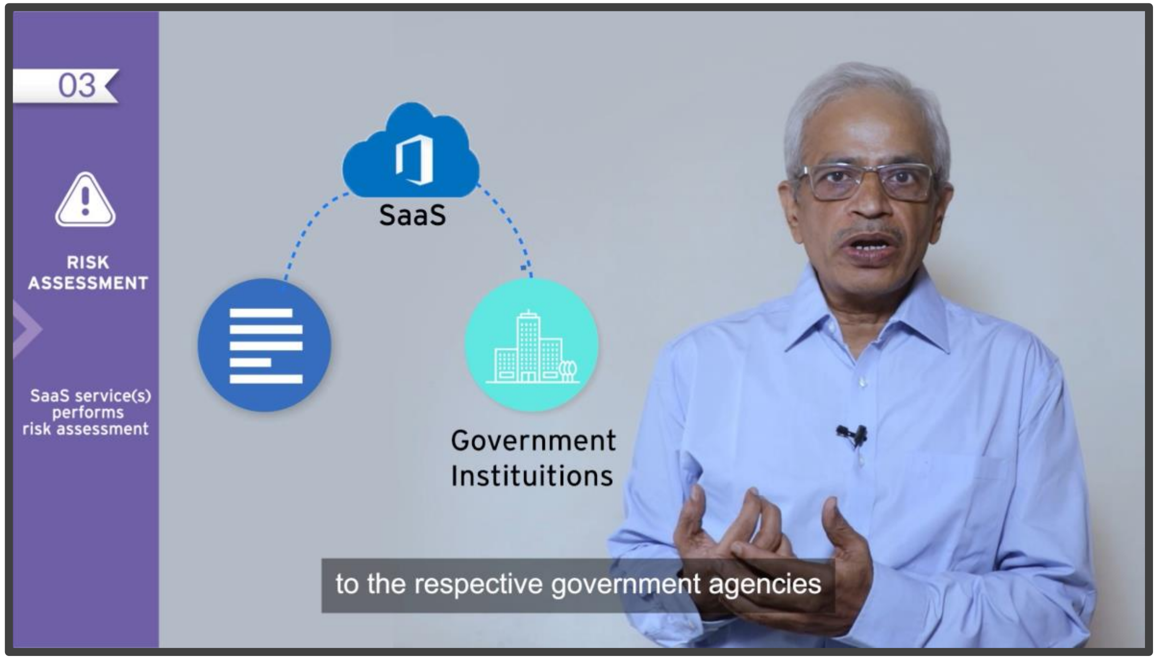
These documents are instantaneously sent for processing to Microsoft Azure based OCR and Vision AI service

and the representative sends the details

EY

Digitization & Automation in Banking & Financial Services Industry

And that data is then sent through another Azure service to the respective government agencies for verification. so my Aadhaar details can be verified my PAN details can be verified or all of these things can happen online.


03
RISK ASSESSMENT
SaaS service(s) performs risk assessment
SaaS
Government Institutions
to the respective government agencies

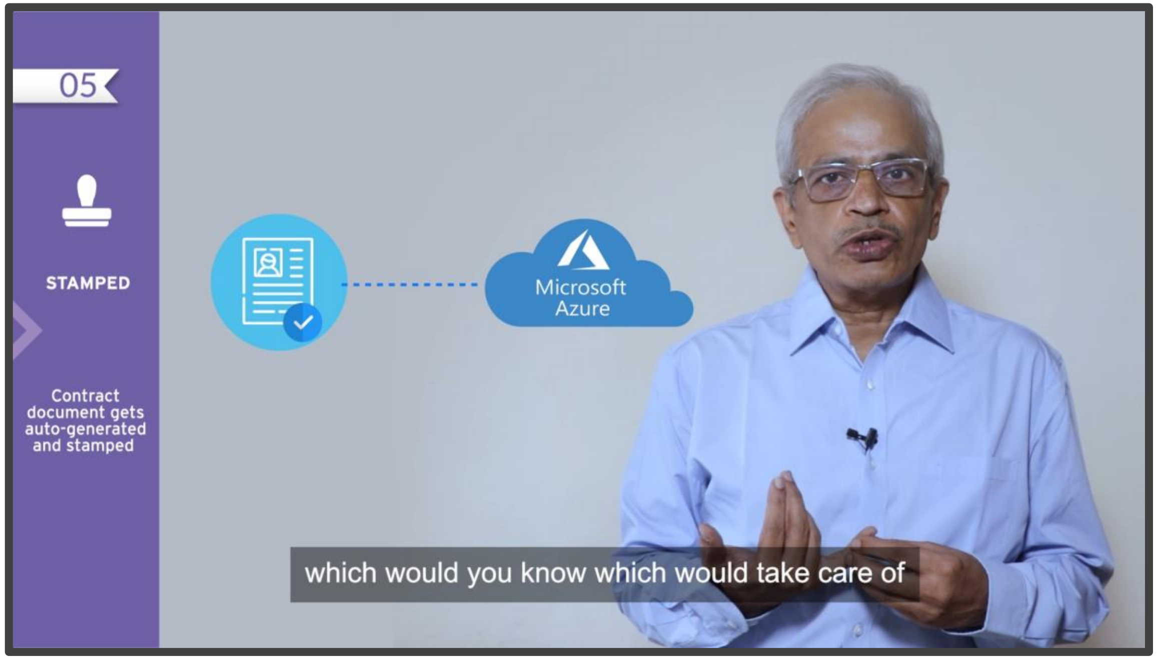
Digitization & Automation in Banking & Financial Services Industry

The system automatically fills up a form which again can be done with an application sitting right on Microsoft Azure

04
NOTIFICATION
Microsoft Azure based notification service sends a confirmation message
which again can be done

Digitization & Automation in Banking & Financial Services Industry

and then that document is sent for e-stamping through another Azure service which would you know which would take care of the stamping of the document the value which has to be paid to the government


05
STAMPED
Contract document gets auto-generated and stamped
Microsoft Azure
which would you know which would take care of

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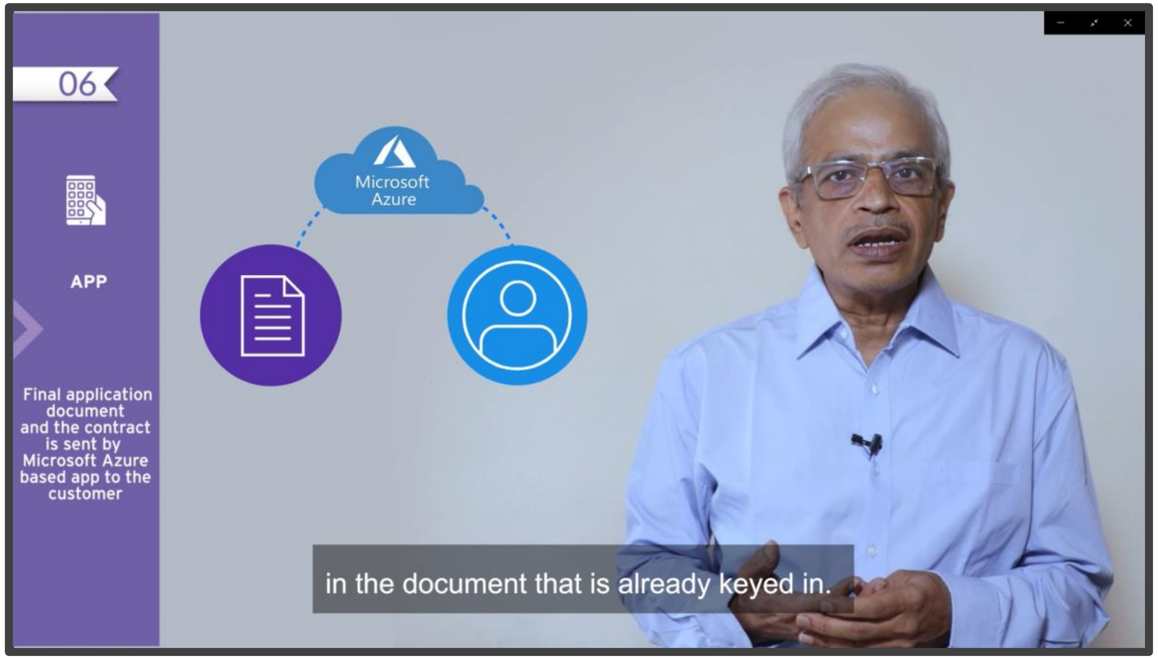
The form is sent online to the customer the customer doesn't have to fill in their name, the date of birth etc. because that information is already there additional small incremental information

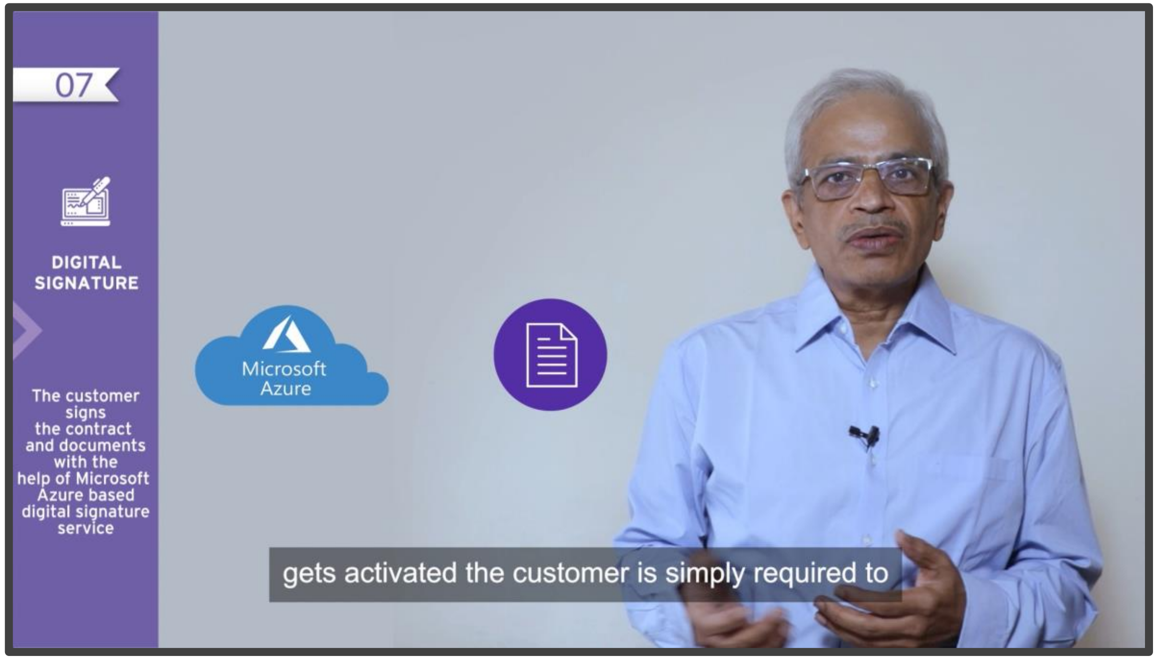


Final application document and the contract is sent by Microsoft Azure based app to the customer

in the document that is already keyed in.

Digitization & Automation in Banking & Financial Services Industry

and also then e-signature service sitting on Azure gets activated the customer is simply required to electronically sign on that particular form


07
DIGITAL SIGNATURE
The customer signs the contract and documents with the help of Microsoft Azure based digital signature service
Microsoft Azure
gets activated the customer is simply required to

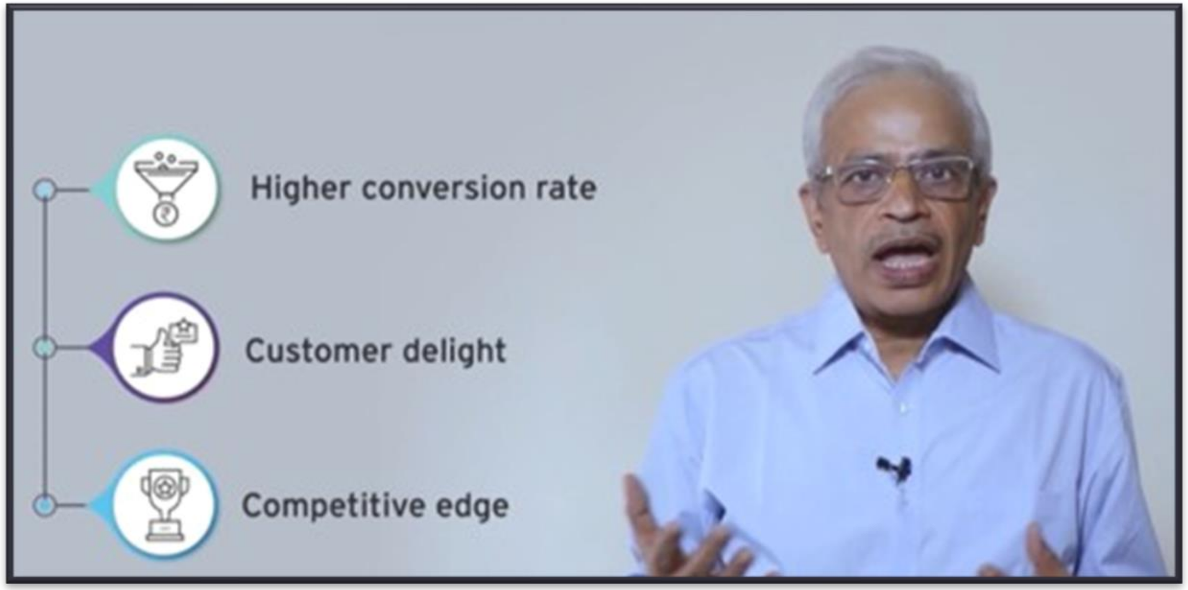
Digitization & Automation in Banking & Financial Services Industry

so this whole process becomes completely digital, completely electronic and it happens within a few minutes while the customer representative is having a cup of tea with the customer, this whole process can get completed.

08
DONE
Customer's onboarding is complete, and the account details are sent to him/her to start transacting.
a cup of tea with the customer,

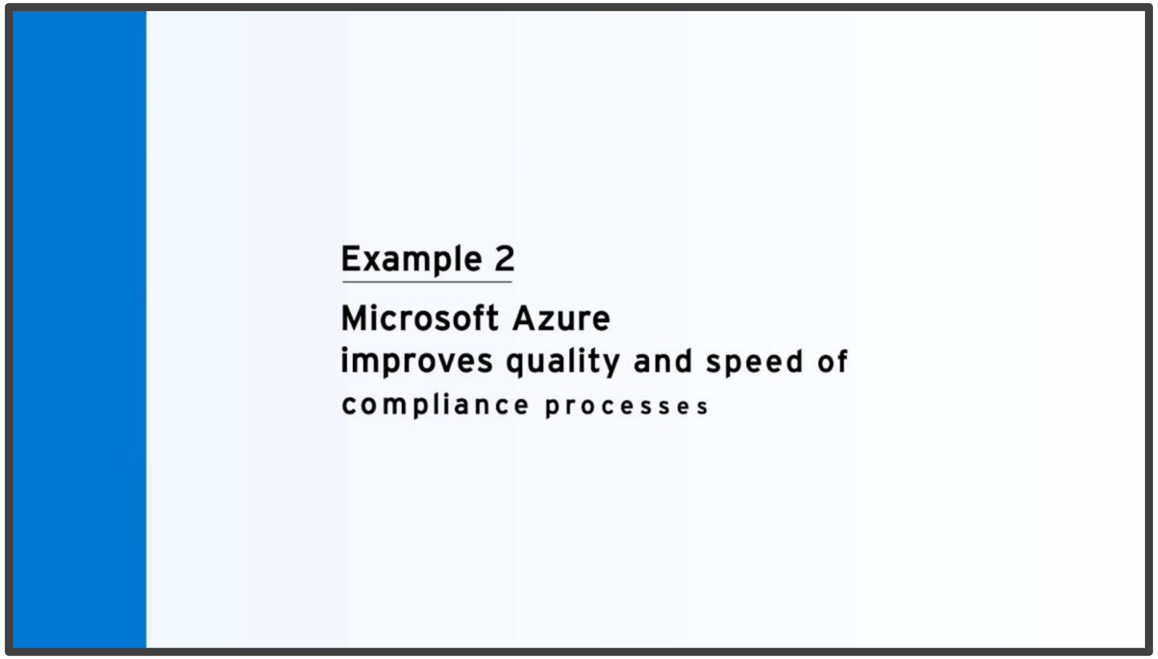
Digitization & Automation in Banking & Financial Services Industry

Look at the transformation that is possible with this process which typically takes several days is now going to be taking just a few minutes and with this it's not only the banks will be able to save a lot of cost and resources because they very little effort is wasted and very little time is spent but it also helps them provide excellent customer experience and bases that experience, they would be able to get a much significant competitive advantage compared to their peers.


Higher conversion rate
Customer delight
Competitive edge

Digitization & Automation in Banking & Financial Services Industry

Example 2: Microsoft Azure improves quality and speed of compliance processes

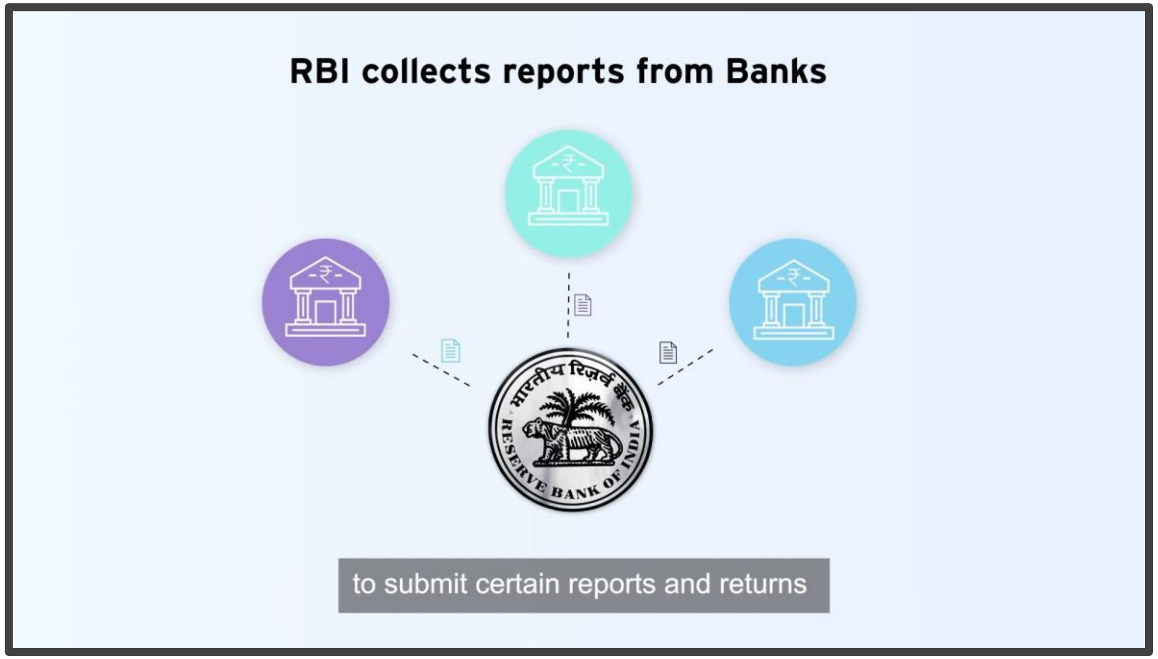


Example 2

Microsoft Azure
improves quality and speed of compliance processes

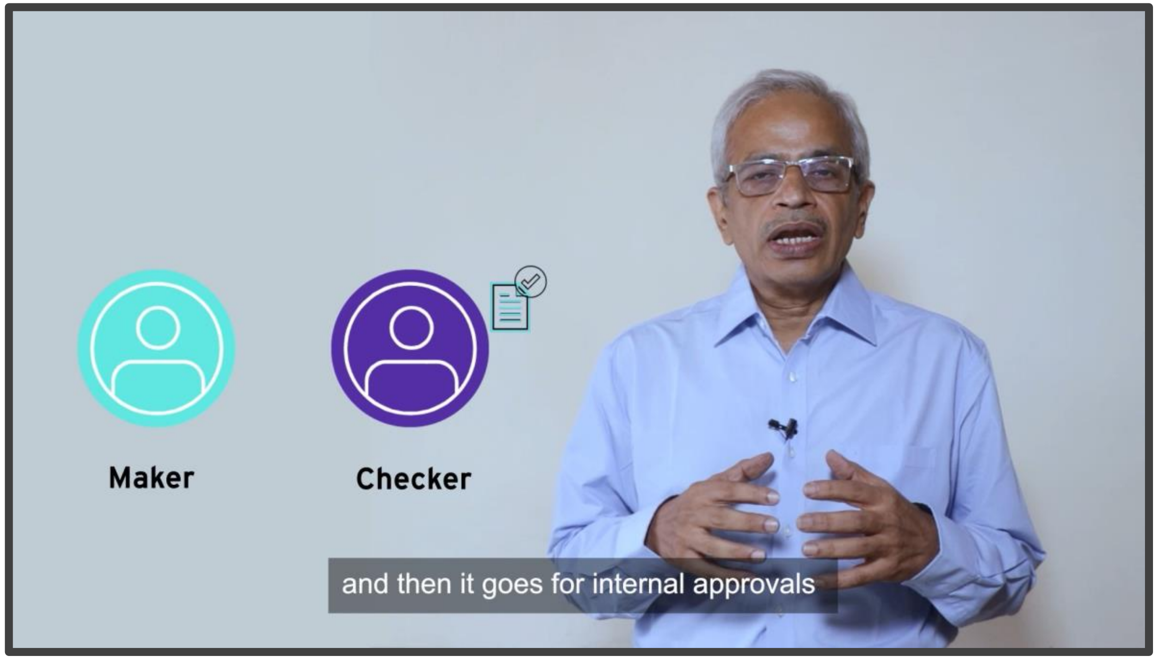
Digitization & Automation in Banking & Financial Services Industry

This relates to the regulatory compliances which are required by all BFSI companies for example RBI requires banks to submit certain reports and returns on scheduled basis this could be required on a weekly, fortnightly, monthly basis. Similarly, in insurance sector IRDA might require insurance companies to submit certain returns and reports on a scheduled basis


RBI collects reports from Banks
to submit certain reports and returns

Digitization & Automation in Banking & Financial Services Industry

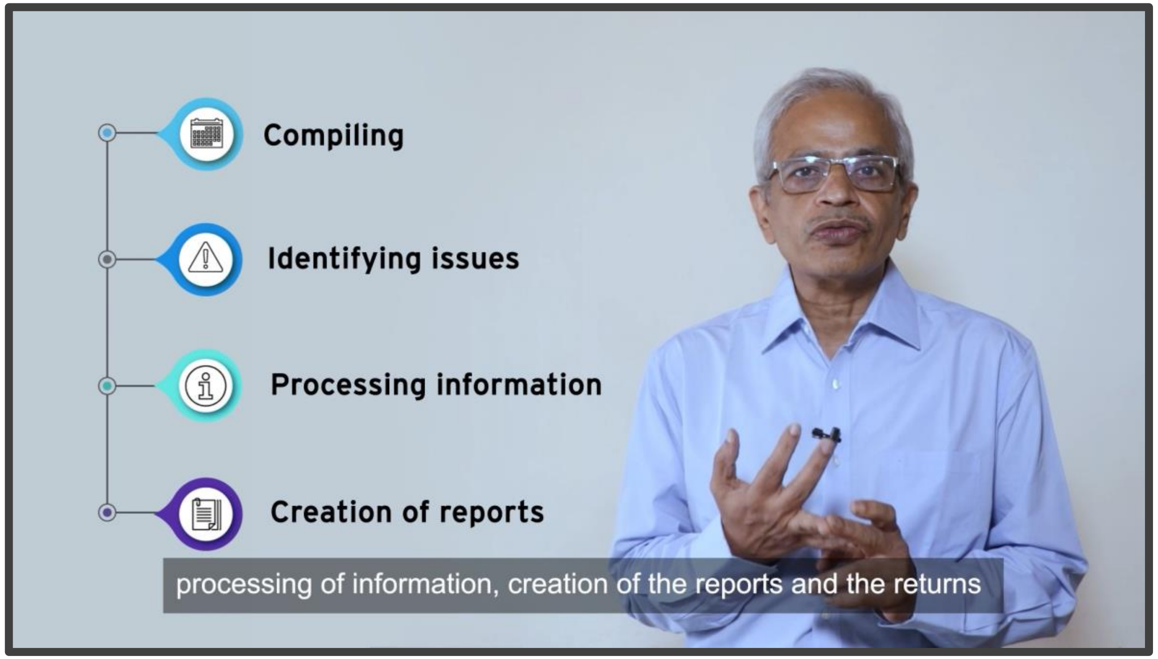
Typically, this requires a lot of data collation from multiple systems and multiple sources it could be sitting in multiple banking systems and also different branches different departments also would be involved in this in terms of this information to be collated. fill it up in Excel sheet and once those information are collated then, they would do the compiling they would do the processing. And then if there are any accuracy or inaccuracies or errors, for that it is required to be a maker checker process. So, one person creates it another person checks it and then it goes for internal approvals and once the rap-report is ready then it is sent out to the regulators


Maker
Checker
and then it goes for internal approvals

Digitization & Automation in Banking & Financial Services Industry

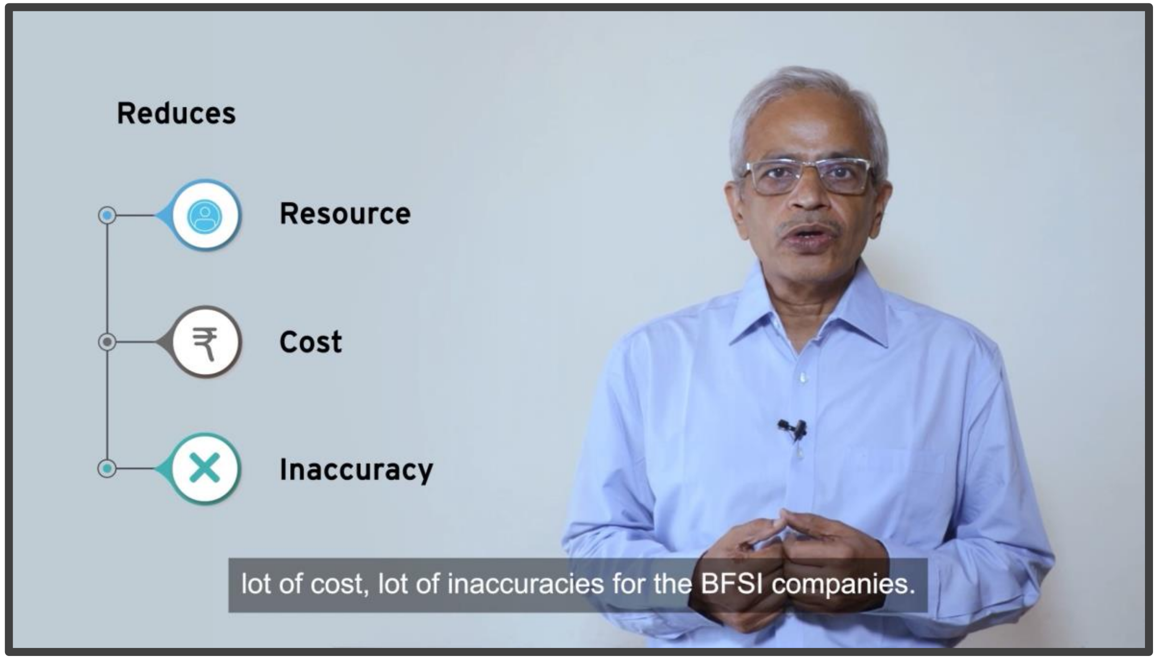
This again is a very effort intensive process it requires people to spend a lot of time and also it requires redundancies so that you don't make errors. Third, despite of all of these redundancy there is still a chance of an error because this is this is eventually, a manually created process. This is where when you look at Microsoft Azure it can you know transform the whole process by simply using a robotic process automation approach.

Where, every activity which a person is performing can be done by a bot. So, bot would do the collation of information from the various systems. the bot would have the rules defined based on it, it will know if there is any exception it would trigger the right side of people for them to take care of those exceptions


Compiling
Identifying issues
Processing information
Creation of reports
processing of information, creation of the reports and the returns

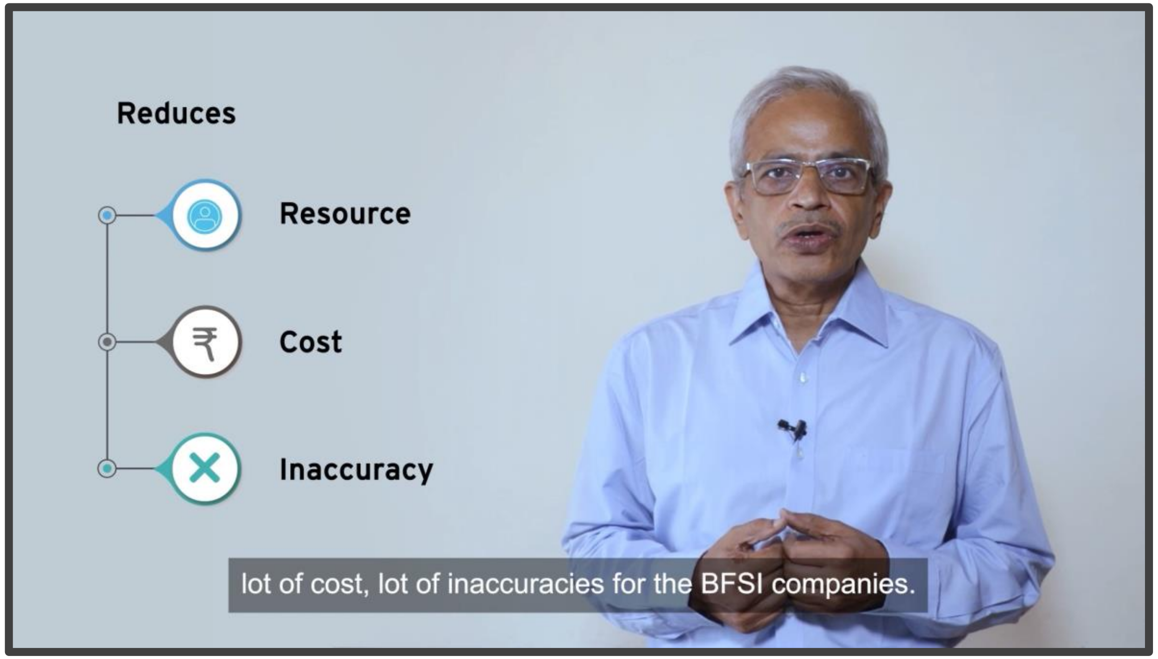
Digitization & Automation in Banking & Financial Services Industry

So, entire compiling, identifying of any issues, processing of information, creation of the reports and the returns can all completely be done with the help of a robotic process automation Bot which is supported on Microsoft Azure and then this report actually does not even no need to go for approval because the accuracy is taken care of all the information you can be rest assured is accurate because no human involvement is there.


Reduces
Resource
Cost
Inaccuracy
lot of cost, lot of inaccuracies for the BFSI companies.

Digitization & Automation in Banking & Financial Services Industry

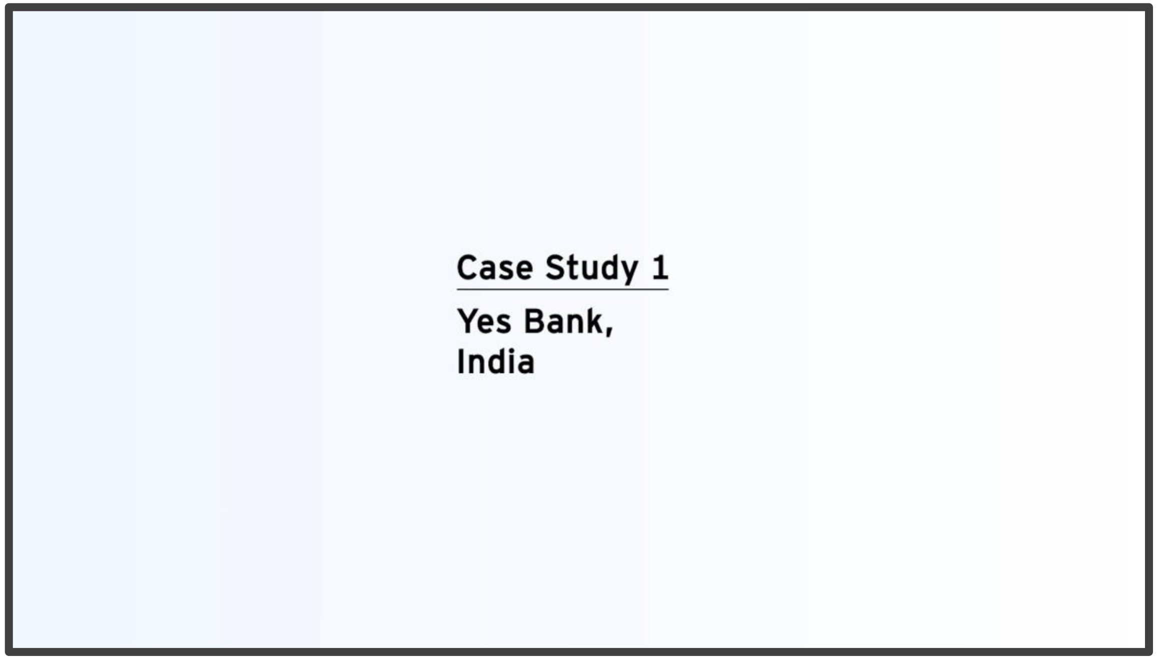
Still, if it requires to be taken for approval it can be electronically approved. And then, the final report could be sent out to the regulatory authorities. Again, this whole process which you would normally take several people's involvement and several man days of involvement can happen with in a few minutes time and therefore it can save a lot of resources, lot of cost, lot of inaccuracies for the BFSI companies


Reduces
Resource
₹
Cost
Inaccuracy
lot of cost, lot of inaccuracies for the BFSI companies.

Digitization & Automation in Banking & Financial Services Industry

YES BANK adapts the futuristic customer with Microsoft Azure Cognitive Services YES BANK has been reinventing itself with technology over last 15 years.

The bank has over 1,150 branches across India and its portfolio comprises of corporate, retail, and SME banking, covering financial markets, investment banking, corporate finance, wealth management and related areas

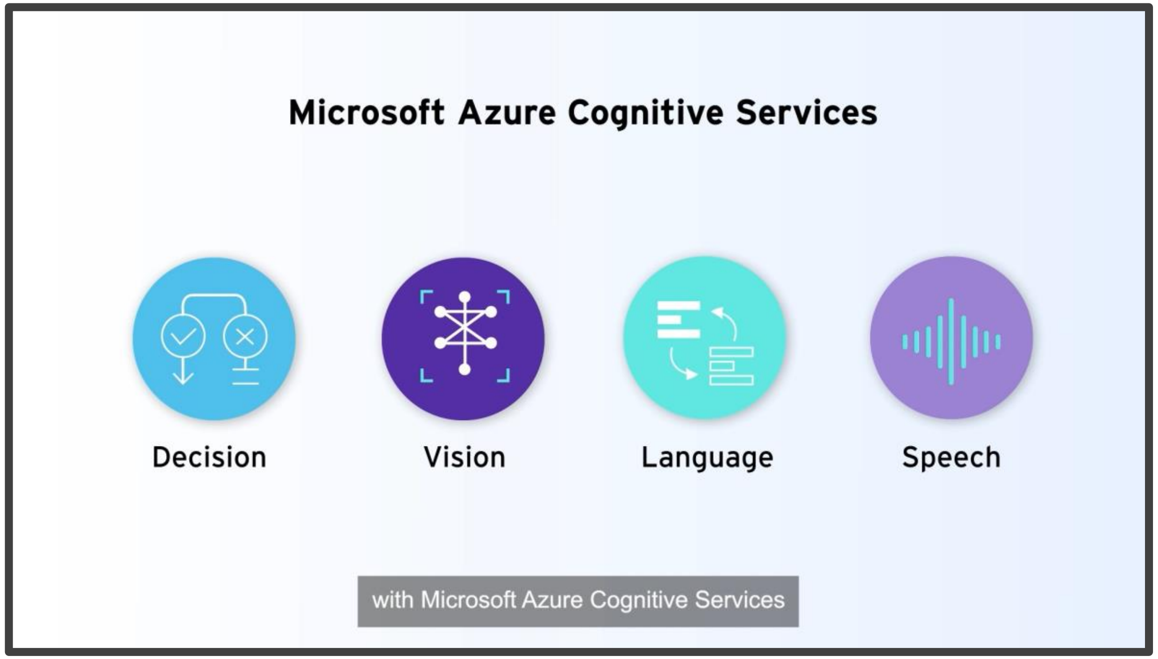


Case Study 1

Yes Bank,
India

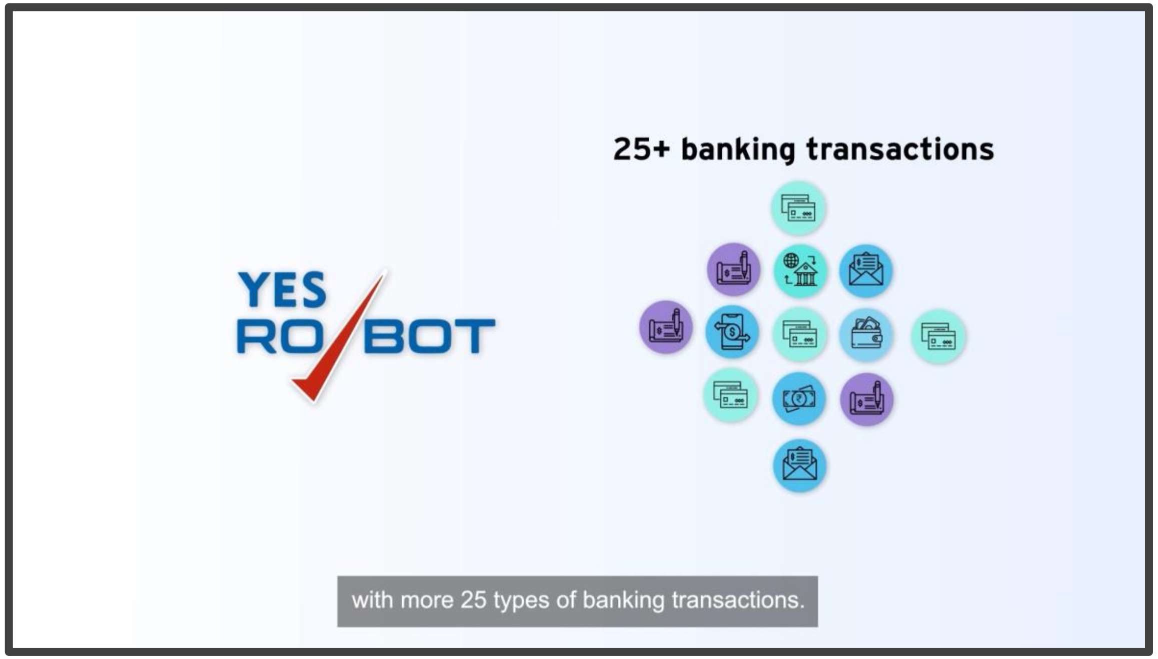
Digitization & Automation in Banking & Financial Services Industry

Customer queries were often repetitive and took considerable time for human operators to respond. YES Bank started exploring opportunities to decongest incoming query traffic and provide quick answers to the customers. Use of technology to ease the load of customer support executives and a simple way to enhance the customer experience around interacting with the bank or enabling a conventional transaction


Microsoft Azure Cognitive Services
Decision
Vision
Language
Speech
with Microsoft Azure Cognitive Services

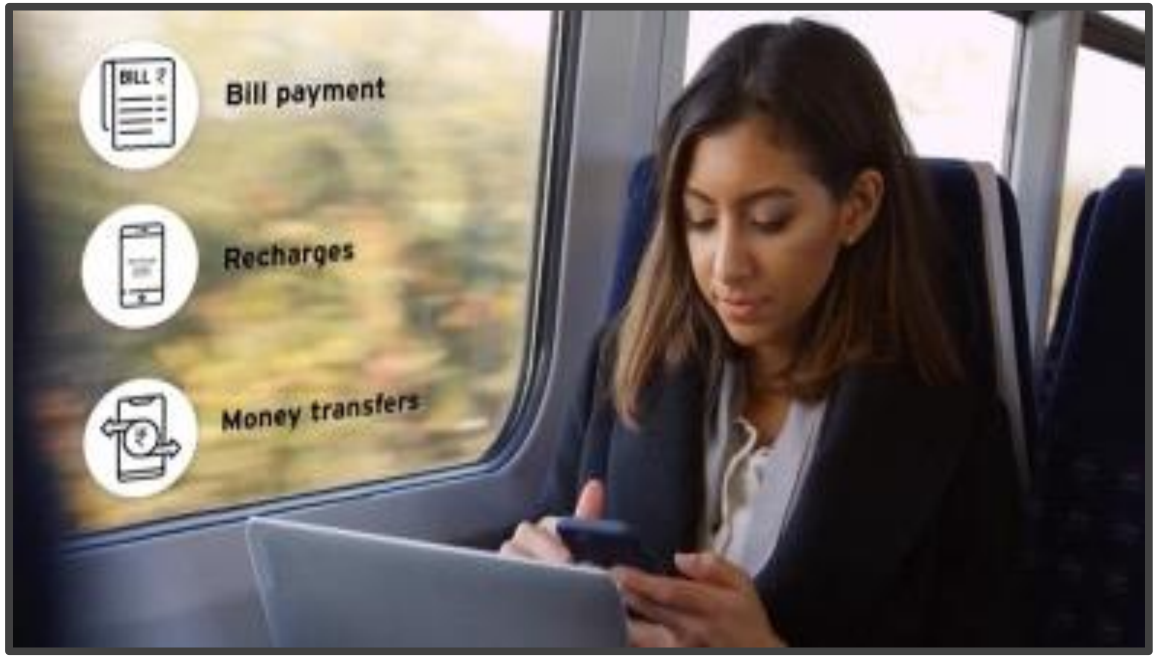
Digitization & Automation in Banking & Financial Services Industry

To better serve it's customers the bank developed YES Robot and Azure AI powered 24/7 personal banking assistant. The YES Robot helps customers with more 25 types of banking transactions. It checks the eligibility and helps the customers and prospects apply for over 65 banking products including loans with real-time relationship manager assistance


YES ROBOT
25+ banking transactions
with more 25 types of banking transactions.

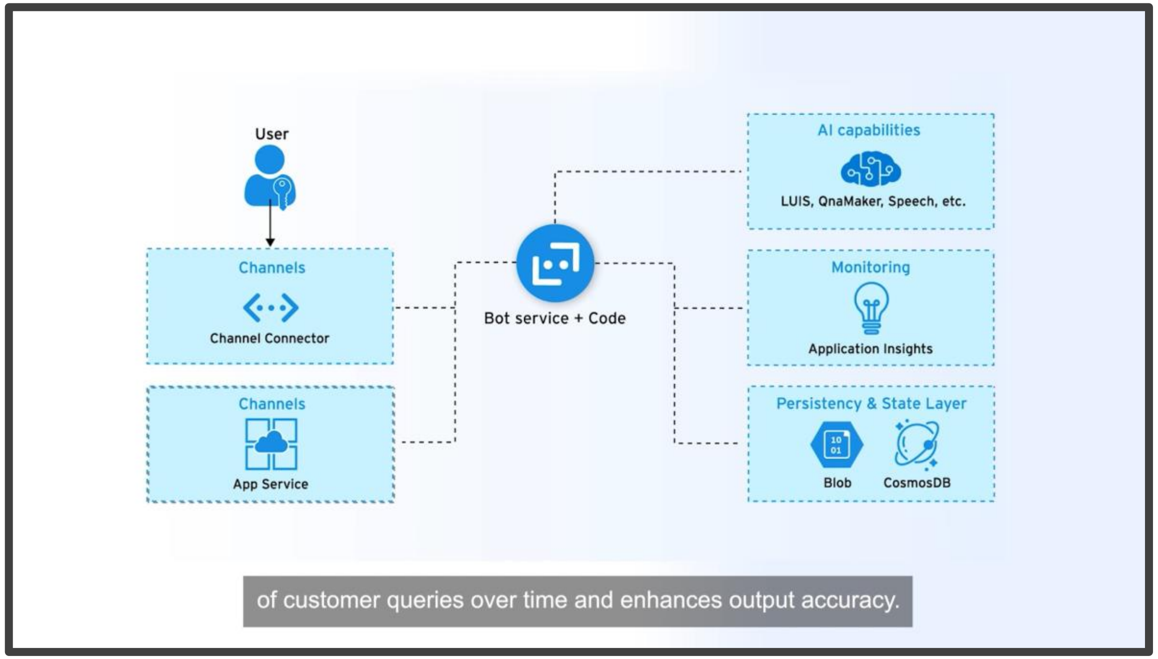
Digitization & Automation in Banking & Financial Services Industry

Not only, can customers chat with the bot to find answers to the queries, they can also perform several financial transactions like bill payment, recharges and money transfers Features, like, managing credit cards and booking deposits via a chat bot are unique across the banking industry. and are widely accepted by the customers


BILL ₹
Bill payment
Recharges
Money transfers

Digitization & Automation in Banking & Financial Services Industry

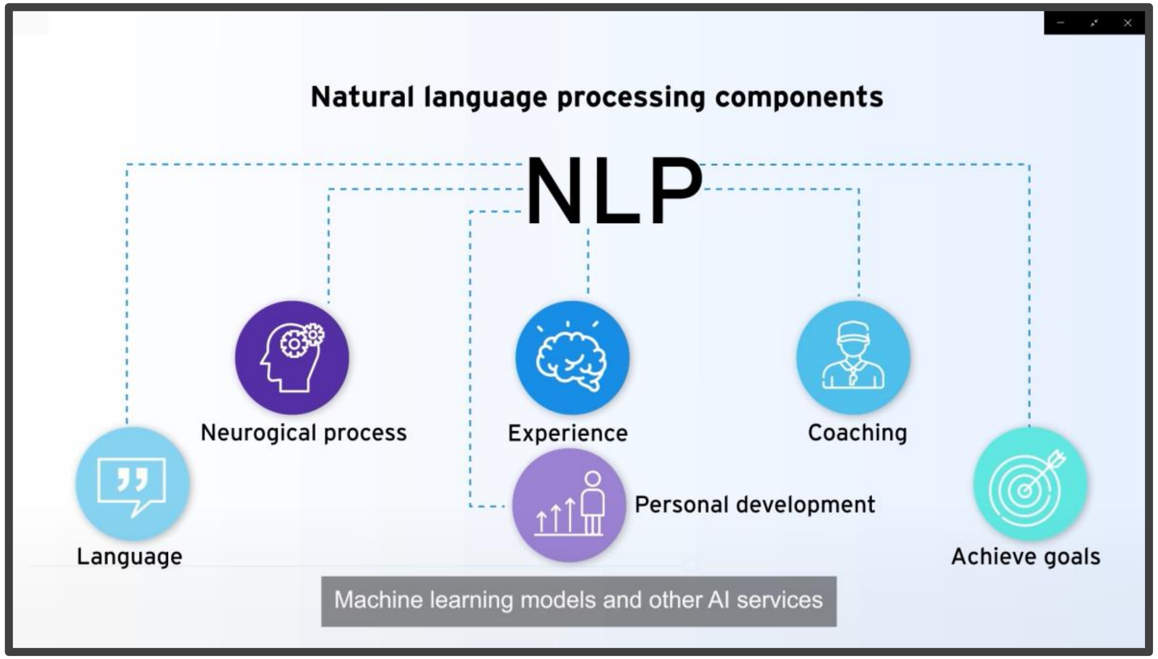
The bot with it's domain vocabulary feature integrated with LUIS has a repository of industry related terms phrases and business intelligence that helps effective learning of customer queries over time and enhances output accuracy. The bank is also planning to extend the chat bot capabilities for it's partners, paving the way for impactful customer service


User
Channels
Channel Connector
Channels
App Service
Bot service + Code
AI capabilities
LUIS, QnaMaker, Speech, etc.
Monitoring
Application Insights
Persistency & State Layer
Blob
CosmosDB

of customer queries over time and enhances output accuracy.

Digitization & Automation in Banking & Financial Services Industry

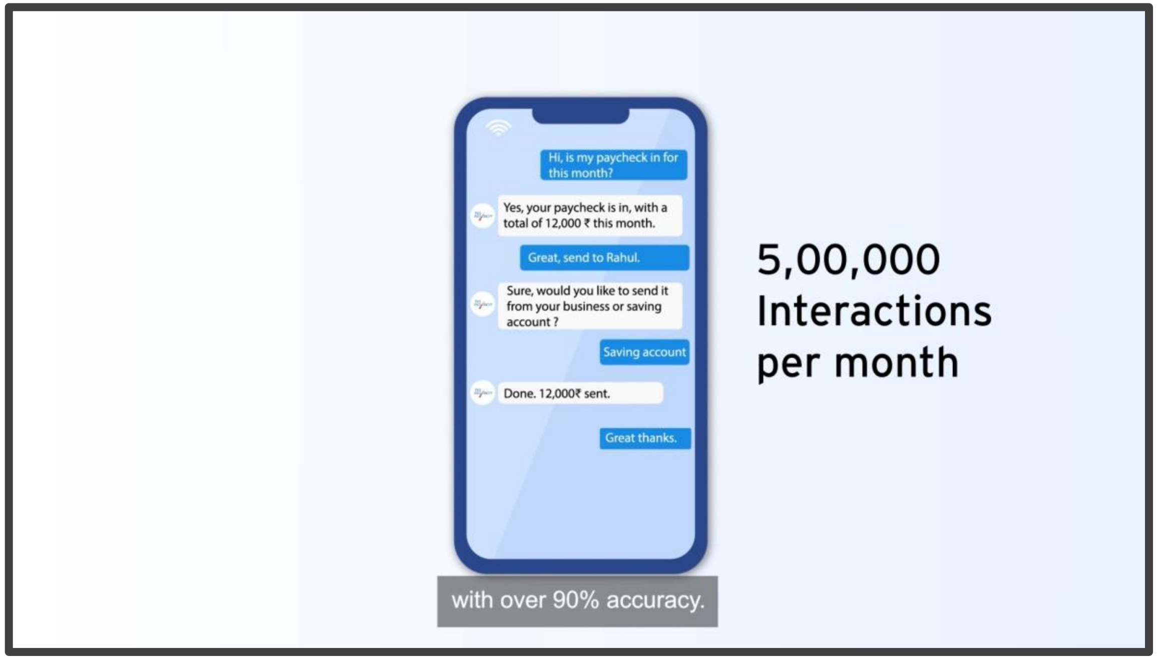
YES Bank is focused on building a holistic AI ecosystem equipped with Natural Language Processing Machine learning models and other AI services Yes Bot is a round the clock banking assistant developed using the Azure's cognitive services Customers can launch the chat bot on the social media platforms such as Facebook as well.


Natural language processing components
NLP
Neurogical process
Experience
Coaching
Language
Personal development
Achieve goals
Machine learning models and other AI services

Digitization & Automation in Banking & Financial Services Industry

Yes Robot delivers faster resolution than the conventional service desks. It handles more than half a million interactions every month with over 90% accuracy

Yes Robot has taken off a significant load from the customer service teams and improved the customer satisfaction. Bank has recorded 30% growth in transaction volume and expects accelerated growth in future as bank adds more banking services to the bot.



Hi, is my paycheck in for this month?

Yes, your paycheck is in, with a total of 12,000 ₹ this month.

Great, send to Rahul.

Sure, would you like to send it from your business or saving account ?

Saving account

Done. 12,000₹ sent.

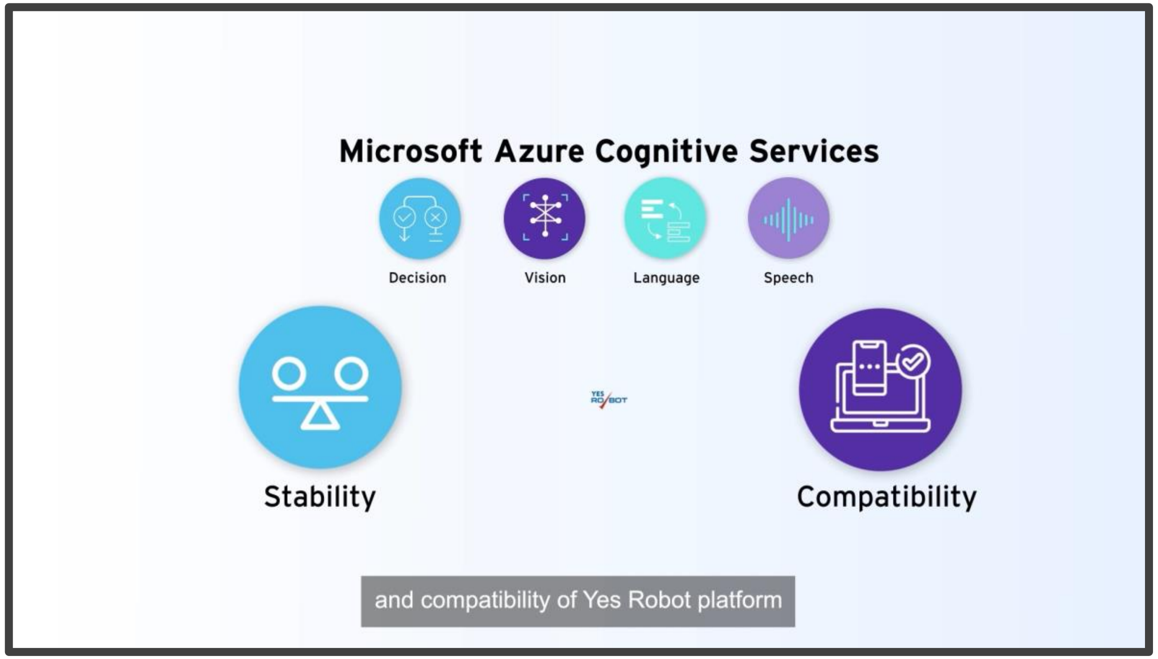
Great thanks.

5,00,000 Interactions per month

with over 90% accuracy.

Digitization & Automation in Banking & Financial Services Industry

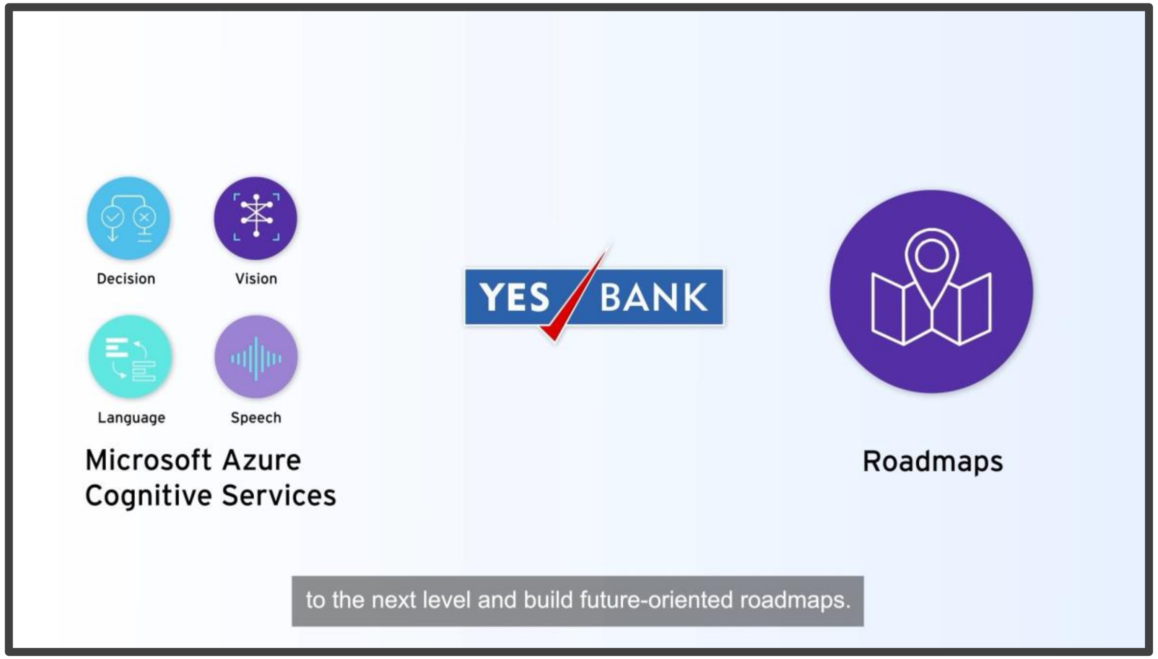
Microsoft Azure cognitive services have enhanced the stability and compatibility of Yes Robot platform which includes efficiency in handling user query variations accuracy in responding to user queries and faster speed of adding new features and time to the market.


Microsoft Azure Cognitive Services
Decision
Vision
Language
Speech
Stability
Compatibility

and compatibility of Yes Robot platform

Digitization & Automation in Banking & Financial Services Industry

The platform is future-ready for integration with other cognitive tools and the bank plans to integrate features such as voice based commands, interfacing with Azure data lake to further enhance user experience. Leveraging Microsoft Cognitive Services, of taking a conventional user experience to the next level and build future-oriented roadmaps


Decision
Vision
Language
Speech
Microsoft Azure Cognitive Services
YES BANK
Roadmaps

to the next level and build future-oriented roadmaps.

Digitization & Automation in Banking & Financial Services Industry

Standard Bank is Africa's largest bank by assets. Headquartered in Johannesburg, South Africa. Standard Bank is deeply involved in trade both on the African continent and beyond.

Case Study 2

Standard Bank,
South Africa

Digitization & Automation in Banking & Financial Services Industry

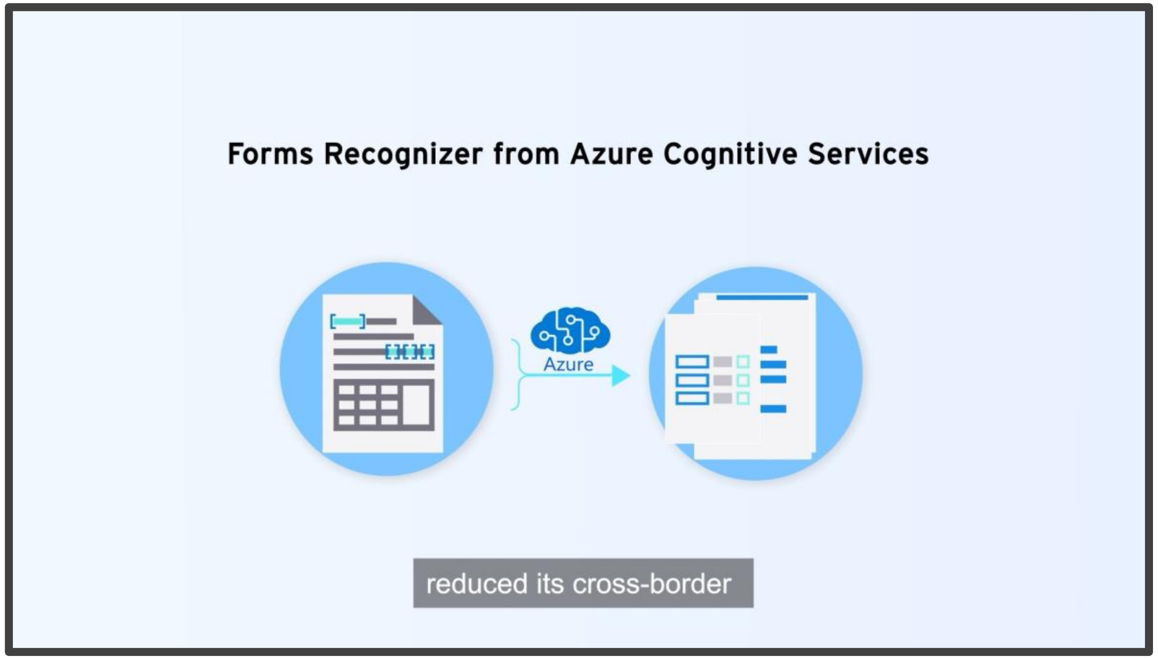
How a bank in South Africa is leveraging Azure Cognitive Services (AI) and Azure Form Recognizer, Standard Bank has reduced its cross-border payments registration and processing time significantly.

Making cross-border payments in South Africa can be lengthy and complex particularly for the banks processing the transactions The manual due-diligence in cross-border transactions began absorbing too much staff time the bank needed a new way forward Using Form Recognizer from the Azure Cognitive Services reduced its cross-border payments registration and processing time significantly

Time-consuming manual document processing
Azure cognitive services
Reduced recapturing of data on to core system
and processing time significantly.

Digitization & Automation in Banking & Financial Services Industry

To pioneer a new way forward in order to bring an automated time-saving solution to life Microsoft Azure Forms Recognizer and the vision API's helped to save the countless hours Now, the registration process and document classifications are instant and totally automated.

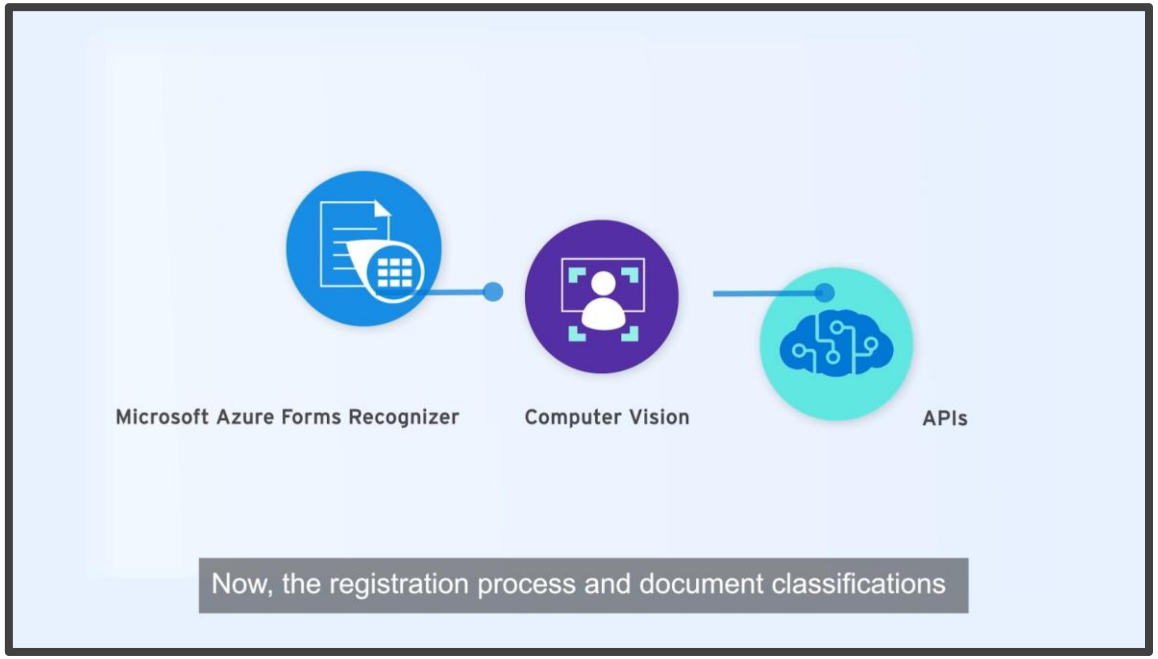


Forms Recognizer from Azure Cognitive Services

reduced its cross-border

Digitization & Automation in Banking & Financial Services Industry

A major portion of the required data are pre-populated in the bank system ready for staff to validate. Bank started saving time on every transaction Instant payment registrations have been first benefit from a client perspective as payments are received on the bank system instantly


Microsoft Azure Forms Recognizer
Computer Vision
APIs

Now, the registration process and document classifications

Digitization & Automation in Banking & Financial Services Industry

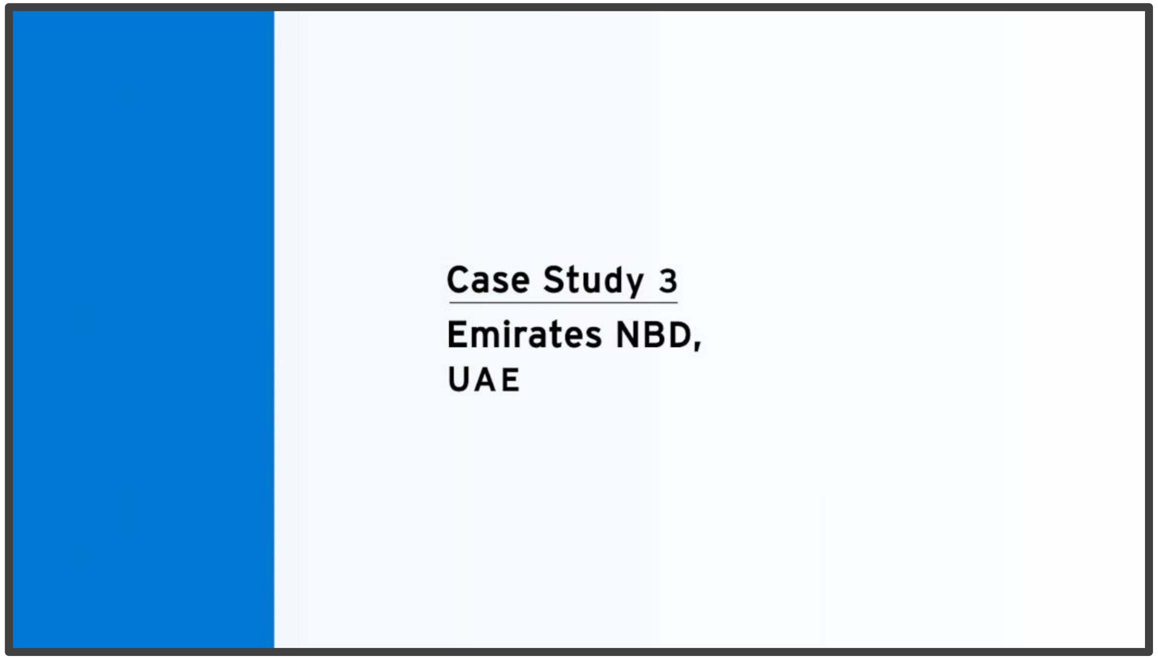
But, besides the quicker turnaround times, capturing reduced number of data elements by the staff, increasing the quality of the output. This resulted in greater satisfaction for clients and the employees

Quicker turnaround
Reduced data elements
Better quality

by the staff, increasing the quality of the output.

Digitization & Automation in Banking & Financial Services Industry

Another example of how a Dubai based bank leveraged mobile banking app that empowers millennials to take charge of their lives, money and investments using Microsoft Azure.



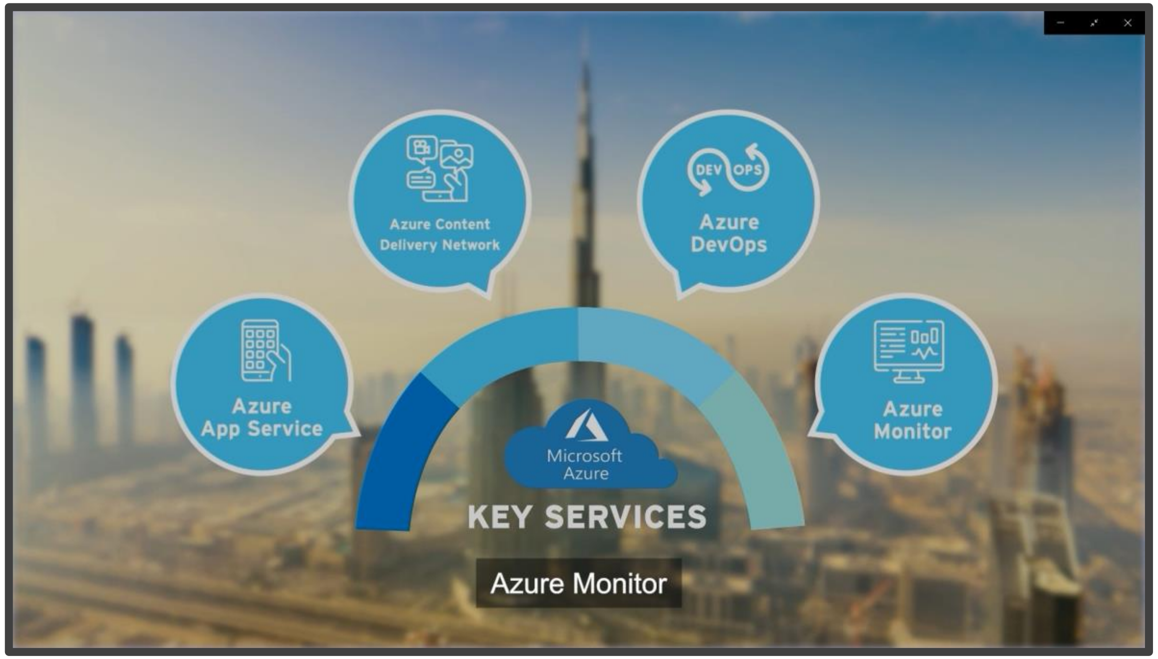
Case Study 3

Emirates NBD,
UAE

Digitization & Automation in Banking & Financial Services Industry

Some of the key Azure Services used are

- Azure App Services
- Azure Content Delivery Network
- Azure DevOps
- Azure Monitor.


Azure Content Delivery Network
DEV OPS
Azure DevOps
Azure App Service
Azure Monitor
Microsoft Azure
KEY SERVICES
Azure Monitor

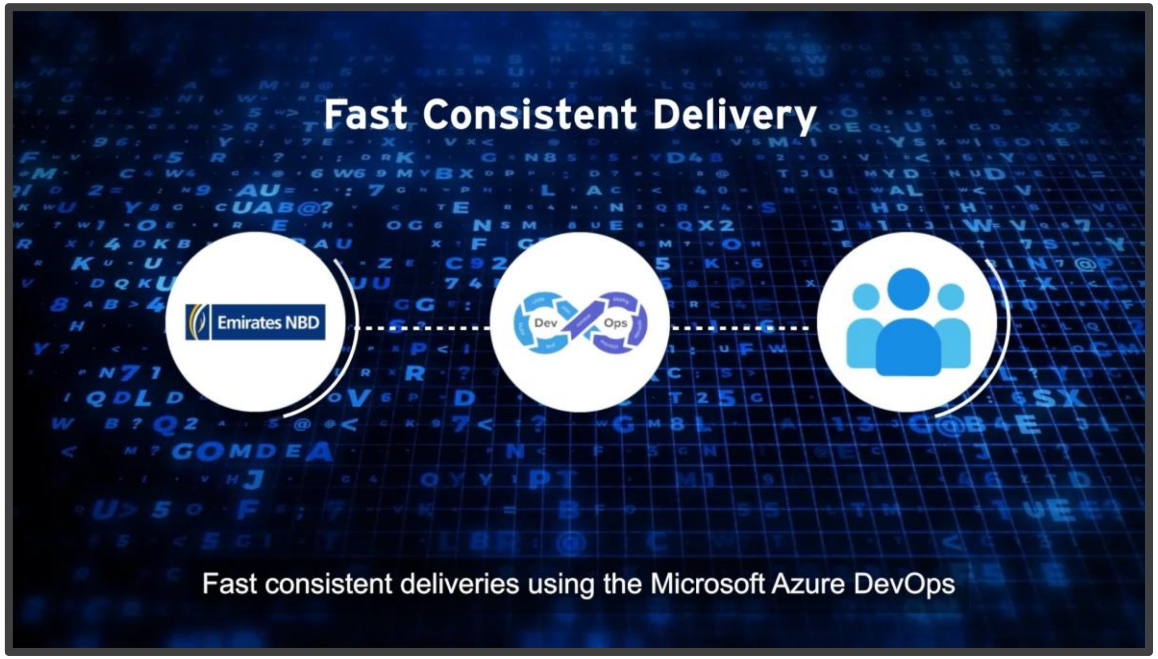
Digitization & Automation in Banking & Financial Services Industry

Leveraging the best of 21st century technologies, Emirates NBD, one of the UAE's largest banking groups built a mobile banking app to cater its higher-profile clients. The bank uses a Microsoft Excel-based revenue simulator which provide instant insights into customer portfolios enabling them to make informed financial decisions that match their lifestyles.

Emirates NBD has made its mission to make customer lives simpler by providing convenient access to relevant offers services based on timely insights focused on customer centric banking, the bank's mobile App was launched as a digital only platform. The App provides a complete mobile banking experience. embedded in customer hobbies and interests

Digitization & Automation in Banking & Financial Services Industry

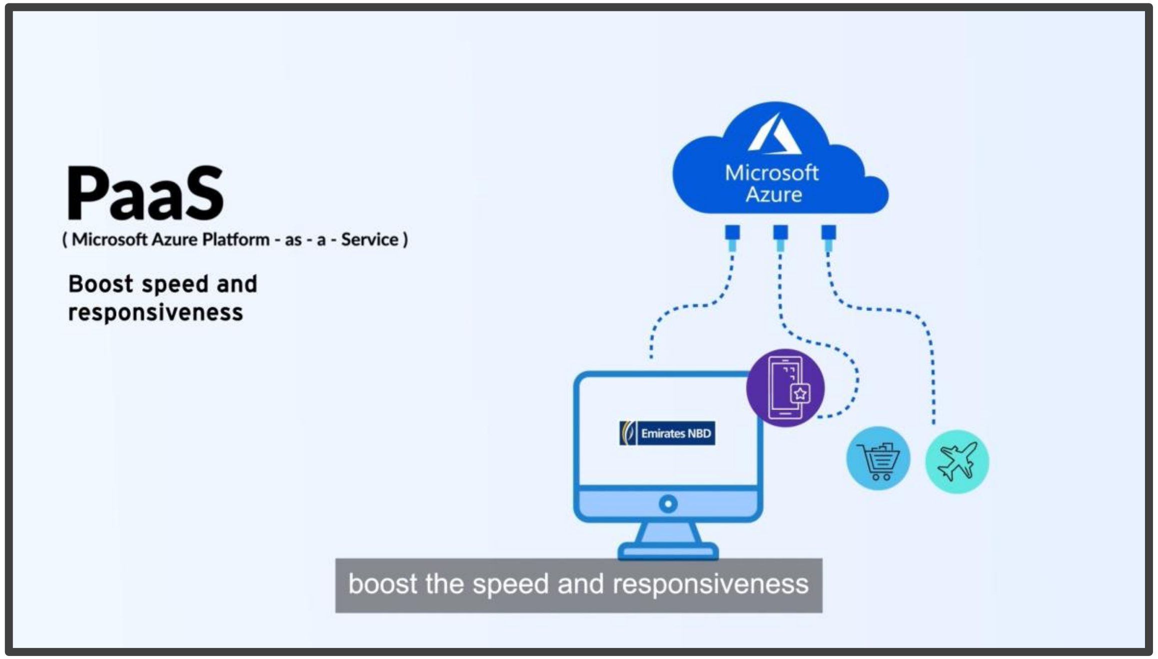
Fast consistent deliveries using the Microsoft Azure DevOps allowing it to deliver and run all the campaigns on the fly the Content Delivery Network enables highly secure and reliable delivery and acceleration of all the necessary app contents to the end users, enhancing the performance and the scale. It just takes 2 minutes to sign up for this app


Fast Consistent Delivery
Emirates NBD
Dev
Ops
Fast consistent deliveries using the Microsoft Azure DevOps

Digitization & Automation in Banking & Financial Services Industry

App offers unprecedented hyper-personalization The one-stop app communicates with third-party services in real time By using Azure, any required integrations can be easily implemented. With a fully managed PaaS offering, Azure App Service and a smart caching technology boost the speed and responsiveness resulting in a seamless user experience.

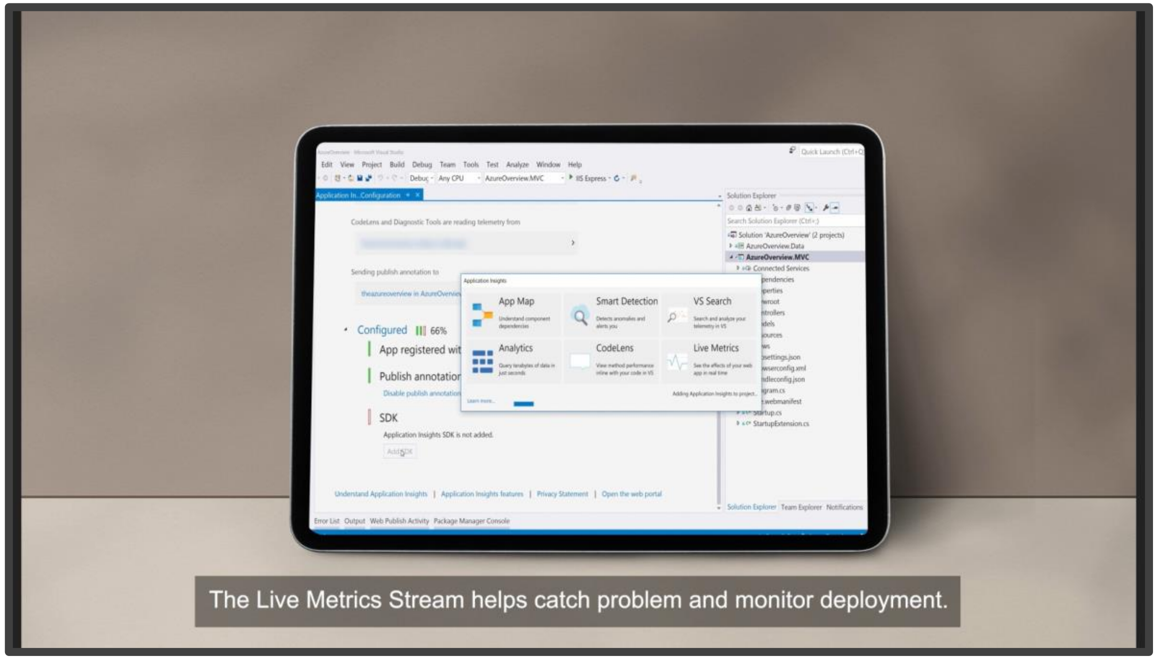
Azure now provides data residency on the Azure UAE regions Minimizing latency, while bolstering security and compliance features and the services. Along with disaster recovery and business continuity benefits with two geographically paired datacenter regions


PaaS
(Microsoft Azure Platform - as - a - Service)
Boost speed and responsiveness
Microsoft Azure
Emirates NBD
boost the speed and responsiveness

Digitization & Automation in Banking & Financial Services Industry

With over 10,000 new users every month, Azure provides the instant scalability to support growth and the company's never ending enhancements.

With Azure Application Insights everything is self managed and tracked. The Live Metrics Stream helps catch problem and monitor deployment. Apps perform their best even when the demand changes while ensuring efficient cost management by optimizing hardware expenses. which is exactly what bank was looking for when running campaigns through the app


App Map
Smart Detection
VS Search
Analytics
CodeLens
Live Metrics
Configured
SDK

The Live Metrics Stream helps catch problem and monitor deployment.

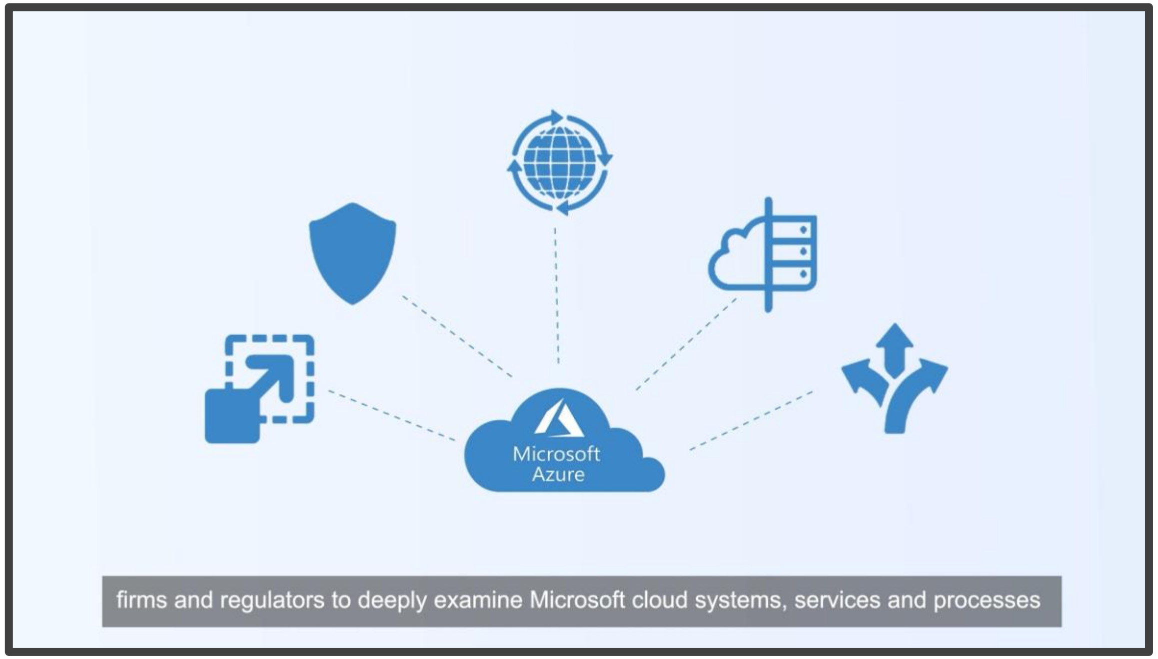
Digitization & Automation in Banking & Financial Services Industry

Azure is opening avenues for implementing Artificial Intelligence. Microsoft Azure helps you to modernize and protect your financial software systems rapidly and comprehensively, all while offering customers a more proactive and financial experience. Microsoft Azure AI services substantially reduce the time for applications development and rolling out it to the customers.

Key Takeaways

Digitization & Automation in Banking & Financial Services Industry

The key considerations for many customers choosing Microsoft Azure for the financial institutions is its significant focused on the Microsoft regulatory compliances. Microsoft's Financial Services Compliance program is a unique program that allows firms and regulators to deeply examine Microsoft cloud systems, services and processes bringing transparency into Microsoft cloud operations.


Microsoft Azure
firms and regulators to deeply examine Microsoft cloud systems, services and processes

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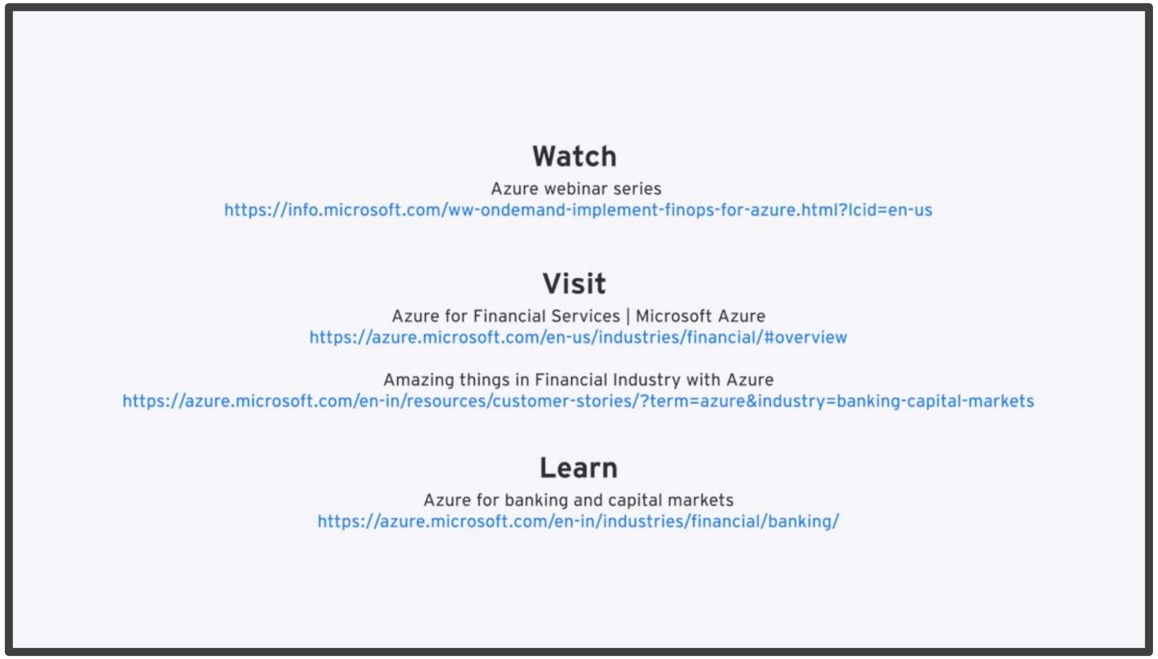
CALL TO ACTION

Reference Links

1. Implement FinOps for Azure
2. Azure for Financial Services | Microsoft Azure
3. Amazing things in Financial Industry with Azure
4. Azure for banking and capital markets



Watch

Azure webinar series
https://info.microsoft.com/ww-ondemand-implement-finops-for-azure.html?lcid=en-us

Visit

Azure for Financial Services | Microsoft Azure
https://azure.microsoft.com/en-us/industries/financial/#overview

Amazing things in Financial Industry with Azure
https://azure.microsoft.com/en-in/resources/customer-stories/?term=azure&industry=banking-capital-markets

Learn

Azure for banking and capital markets
https://azure.microsoft.com/en-in/industries/financial/banking/

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