



Robotic Test Automation – The New Normal in the Post Covid-19 Era for Digital Banks

Covid-19 has created so much devastation on the lives of people and on the global economy that the experts are opining that there is no returning to normal after Covid-19. But, there is a path forward.

There is no concurrence on when mankind will be able to win the war over the virus. The impact of force majeure events like the Covid-19 pandemic on the Banking, Financial Services and Insurance industry shall be seen in two phases.

01

Transient phase, that will see significant challenges in operations

02

Enduring phase, that will see challenges that can be destructive to the sector

Transient Phase, as we are witnessing now, is characterized by a huge drop in consumption. Customer onboarding will continue to be slow. The biggest impact would be on the build of the asset book and corporate banking. We might also witness branch operations being impacted primarily due to intermittent lockdowns and fear of spread will push more people across the globe to use digital channels for servicing. Even the not so educated populace that can operate a mobile phone are being pushed to use these channels.

Enduring Phase: With the broader economy collapsing, and critical impact on the day-to-day commerce, there will be significant job losses and reduction in disposable income. This will in turn impact retail banking as collections and credit growth will likely get hindered despite the government policies, owing to the fear psychosis that would grip the world. As many businesses will be forced into liquidation due to the cashflow crunch or the disappearance of a market, credit receivables will increase. In this situation, the governments will step in to provide backstopped loans etc., but the sufficiency of these measures cannot be predicted.

Touch being one of the key causes of virus transmission, consumers will opt for non-cash, low-or-no touch payment solutions, and the shift to contactless cards will accelerate. With general avoidance of gathering, banks will have to innovate processes out of physical branches. Expectations for digital technologies for KYC and Contract Acceptance will grow. Self-service channels will increase in usage and

popularity, primarily due to convenience and safety. This will also help reduce costs in a medium term.

This does not mean that the world would come to an end. However, the way Banking and Financial Services are offered to the clients would change drastically.

Digital services would be the new norm for banks and other financial institutions. The transient phase that would give significant fillip to customer adoption of digital channels would be the saviour of the industry in the endurance phase. The cost difference for providing services to the clients through digital channels has been proven to be exponentially lower than brick and mortar branch-based services.

Customer Experience driven digital channels will push BFSI entities to adopt a differentiated and integrated Two-pronged IT Approach. One, the traditional transaction focused back end-systems that have longer lifecycles and two, the flexible and customer centric digital applications that have shorter life cycles. In Yethi's experience, the traditional systems generally follow waterfall model of development while the digital applications follow quicker agile approach with multiple sprints.

The enduring phase will observe significant co-competition and co-existence amongst entities. In addition to own digital apps, digital wallets, and investment apps, co-branded apps for credit etc. built with multiple integration touch points through APIs and interfaces will be seen across the world.

There will be a market-driven push for e-payments even for small retail vendors, as consumers would have an aversion to handle cash that can transmit the virus. It will become a necessity for the e-payments applications to support basic cash transactions via multiple modes like multilingual USSD, SMS in addition to digital applications, bringing APIs and interfaces to the fore.

Most of the times these interfaces shall be provided with stringent SLAs.

Financial institutions are launching specialized digital applications – both web and mobile based to address specific business needs. Integrated apps, co-branded apps with other corporations are already a trend. In the foreseeable future, co-branded credit cards would be taken over by co-branded apps. While earlier many apps focussed on post-onboarding customer service, banks will have to quickly migrate to allowing all products to be procured via digital – self-service channels.

Some of these applications, Online Loan Application, for example, have significant interface touchpoints like government organizations, taxation departments, credit bureau interfaces, Enterprise Fraud Management for blacklist, whitelist checks, among others. Traditional verifications such as home visits / office visits would have to be digitally enabled. Govt agency verification and wet signatures will become passé.

There will be considerable digital enablement for corporate banking processes that currently demand ample paperwork in most of the European and Asian countries. The governments and central banks shall be forced to honour secure digital signatures in addition to physical / wet signatures.

Digital applications will have a shorter window of renewal. Creativity and speed are the essence of these application launches so that the financial institution can get the most out of the investment. GTM speed will be determined by the speed and efficiency of the project lifecycle – Design, Build, Test and Deploy.

Quality Assurance plays a fundamental role in ensuring that financial institutions are able to launch the digital products confidently, assuring the readiness of the backend systems for the upgraded processes and validating that the entire technology ecosystem works in tandem to address the changing business needs.

The changes encountered in the transaction patterns will ensure that a significant chunk of transactions move away from brick and mortar branches to the digital channels. This will invariably test the endurance of the channels as well as the associated integration layers. QA as a function ensures that performance testing of these channels in addition to the core transaction engines are conducted periodically.

Customer facing applications that are exposed to the internet pose a variety of cyber threats to the financial institution's business. In addition to implementing adequate infrastructure to prevent cyber risks, the applications inherently need to be designed considering these risks. Security testing of the digital applications must be carried out periodically as these are 'Point in Time' assessments. As and when a new vulnerability or threat is detected, the same needs to be fixed and tested before the vulnerabilities are exploited.

Typically, Vulnerability Assessment and Penetration Testing (VAPT) is conducted on these applications covering at a minimum the OWASP Top 10, vulnerabilities are scanned, and any issues identified are fixed. Tool based security code reviews are also conducted in addition to the VAPT to ensure near zero security defects in the product.

Banks and other financial institutions have been investing in performance and security assessment tools for a long time. However, one of the areas that is posing a lot of challenge today is the time and effort required for functional testing, considering the short GTM cycles for the digital products. Agile product development methodologies solve this with end-to-end testing of the digital products before shipping to the customers.

Enter '**Robotic Test Automation**' (RTA), that addresses this key issue of functional testing.

Significant investments are being done by financial institutions on test automation tools building capabilities around specific tools. Some of the institutions are exploring using well known Robotic Process Automation (RPA) tools for testing their applications.

The key differentiator in favour of RTA is that it caters to the specific requirements of functional testing including the likes of APIs and more importantly, the experience is customized for business analysts as opposed to developers like most of the scripting tools.

RTA tools are versatile & are easy to use, capable of robotic learning of application navigation and test execution. It's crucial for the tool to be code-free in order to be business analyst driven rather than technologist driven. They are capable of expanding to multiple applications with minimum changes and capable of executing business process testing across applications.

One such scenario could be:

- A borrower initiates a 'Personal Loan' application from a digital app on the mobile. Basic validations including credit score check, their eligibility for the loan, etc. are checked at the initial stage.
- Verification of the details are done systemically by the back-office loan origination solution, possibly requiring maker-checker features.
- Loan account is opened in the Loan Management Solution with required details of disbursement, welcome letter, repayment schedule, etc.
- Disbursement is sent to Core System from the LMS application and the amount is credited to the customer's account in the transactional CBS.

The RTA solution should be capable of handling such complete business processes that cut across disparate applications within a bank. A capable RTA tool has the ability to learn and execute tests on the APIs and is capable of handling API calls as a part of the business process testing.

Another challenge with the digital applications is because of the environment. Not every mobile user upgrades the OS as and when they're released. However, financial institutions can't deny application usage to such customers. Typically, current version of the OS and the two previous versions are to be certified. The other aspect

that cannot be ignored would be the form factors of the devices that the customers could be using.

An RTA tool integrated with a device farm ensures that the tests are carried out quickly across devices, across form factors and ensure that customers do not face any hassles. Periodic BAU and regression testing for the digital apps and their interfaces are conducted on the device farm to rectify any issues before the customer faces them.

Another significant feature of the RTA tools is that they are DevOps ready and are easily integrable with DevOps tools.

Robotic Test Automation will be the new norm in the Post Covid-19 era as the world will move towards becoming a reduced cash society, bolstered by digital applications, contactless / touchless solutions that will have a shorter GTM cycle and will need to be enhanced continuously to stay ahead of the market.

Conclusion:

The Transient Phase of Covid-19 might not last long, but the changes that this phase would bring about in terms of customer behaviour, promotion and adoption of digital applications, security threats encountered, performance issues faced due to sudden surge of transactions on the digital channels, among others indicates that the financial institutions must learn quickly and change the way they run their businesses. This will set the stage for the Endurance Phase where the financial institutions may treat these as the new norm. QA as a function that already plays an important role will gain more prominence. Banks and other financial institutions will invest in tools that enable the QA function and Robotic Test Automation

solution would be one of the prized possessions in the near to midterm, setting new norms in the industry.

About Yethi

Founded by Fintech professionals with decades of domain experience, Yethi is invested in building the next generation of solutions to improve the quality of digital technologies being adopted within the BFSI industry.

About Tenjin

Tenjin is Yethi's scriptless test automation platform, a plug-and-play banking aware solution, with distinctive features like robotic capabilities to learn the application and re-learn after any updates, so regardless the complexity and number of updates, the test execution remains high-speed, minimizing manual effort.

To know more about how we can help you mitigate business risks associated with technology enabled operations, reach out to us at info@yethi.in.

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