



'APIFICATION' OF FINANCIAL SERVICES - ADAPTING TO A CUSTOMER CENTRIC WORLD

Introduction

An essential period lies ahead for the industry in which new strategies will have to be forged, partially driven by regulation and partially by opportunities arising from changing customer demands. Collaboration will be the new mantra in financial services which will lead to innovation and cooperation with the wider financial ecosystem. The future will support only those financial institutions that are not only customer centric but also collaborative. Open API will be the driver for innovation and co-creation through newer and disruptive business models. In the long run, cooperation will become as important as competition.



API economy is evolving as a foundation for banking transformation

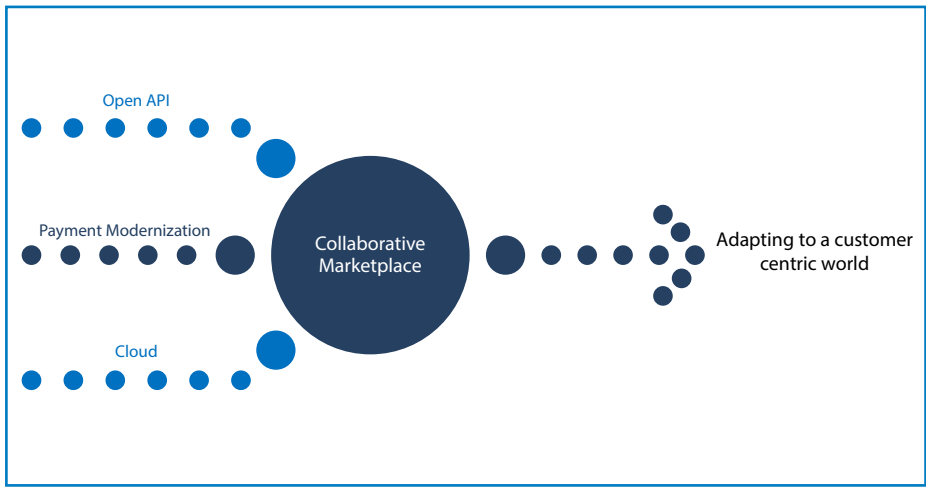
Gone are the days of reinventing the wheel! In today's agile environment, focus is on solutions assembly through innovation and user experience. API economy is the state where different enterprises expose their fully functional distributed processes of digital business assets in the form of APIs with the goal of unlocking additional business value through the creation of new

innovative assets for end consumers. These APIs can be used by developers, partners and internal channels for integrating with their own unique functionalities. A research and advisory firm estimates that 75% of the top 50 banks globally will open their APIs and 25% of these banks will have their app stores for customers.

Banks have operated in a closed ecosystem wherein they have been product creators as well as distributors. APIfication is expected to radically change this model. We propose a digital strategy designed

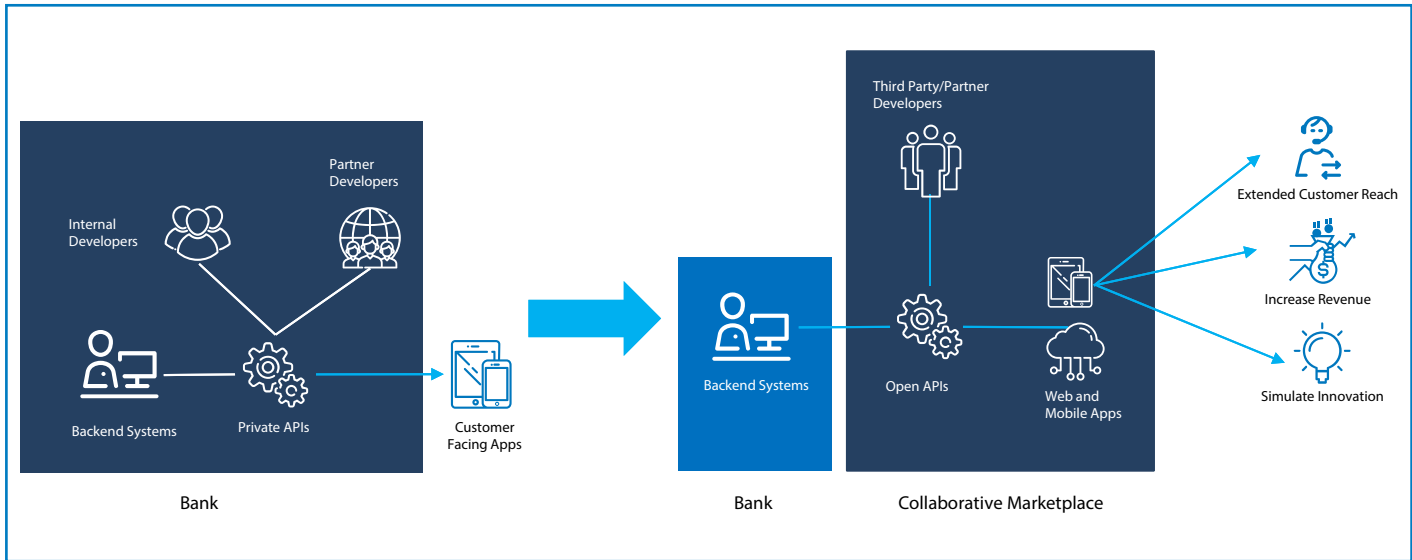
around three levers to enable banks transition from builder of financial products to orchestrator of financial solutions.

Banks have operated in a closed ecosystem wherein they have been product creators as well as distributors. APIfication is expected to radically change this model. We propose a digital strategy designed around three levers to enable banks transition from builder of financial products to orchestrator of financial solutions.



This brings us to APIfication which is –

1. The use of Open APIs that enable 3rd party developers to build apps and services around the financial institution’s existing architecture.
2. Unique offering for banks and for fintech to collaborate in a marketplace where the back-office systems (be it the core banking system, payment engine, trade, risk etc.) can be modernized.
3. Cloud adoption for modernization/ transformation programs due to various advantage seen over the traditional approach.



Opportunities

- Agility through domain autonomy (build, run, governance, technology choices)
- Open API enabler, API monetization, brand awareness
- Architecture simplicity; standardizes integration styles across Systems of Engagement and Systems of Record layers
- Minimizes vendor lock-in
- Makes the life of innovation an easy assignment. With this façade, new applications can be brought to life quickly without the hassle of connectivity
- Reduce the time and cost to market for new business capabilities by up to 90%

API advantages

- Decentralized operating model and governance

- RESTful APIs with 'domain' decomposition
- Lightweight technology choices (Open source predominant)
- Rapid development
- Consumer centric, e.g., consumer-driven contracts
- Help capitalize on multiple APIs – not only yours but also of third parties
- Enable co-creation between various stakeholders – employees, developers, partners and even other banks

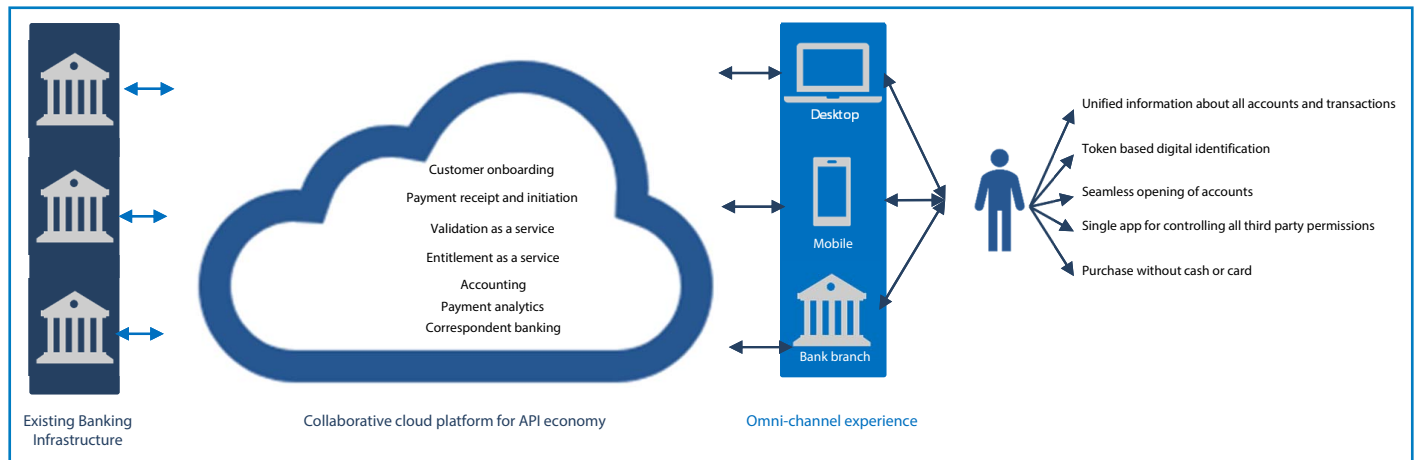
Business drivers

- Growth of existing customer base and attracting new customers by moving out of the one size fits all model - the focus moves from generalization to specialization
- Reduces GTM time thus increasing value

- Alternate source of revenue – increase cross-selling and upselling opportunities due to unbundling of services
- Multi-tasking, isolation, reusability, simple and removes commitment to a single technology stack
- Increase net revenue growth by up to 30% YoY

#NavigateYourNext

API economy is the new mantra for evolution through Open API led by connectivity and digital transformation. Attributes for APIfication are ripe throughout the payment lifecycle which will help adapt to a customer centric world. The attributes throughout the payment cycle and their benefits are as follows:



Customer on boarding

On boarding has become a complex web of interconnected processes. Customized core offerings such as customer onboarding, customer activation, deactivation and payment status would help making these processes simpler and robust. By utilizing this marketplace, banks can reduce costs significantly by not having to create and integrate different components of the digital banking pyramid individually.

Current client on boarding process

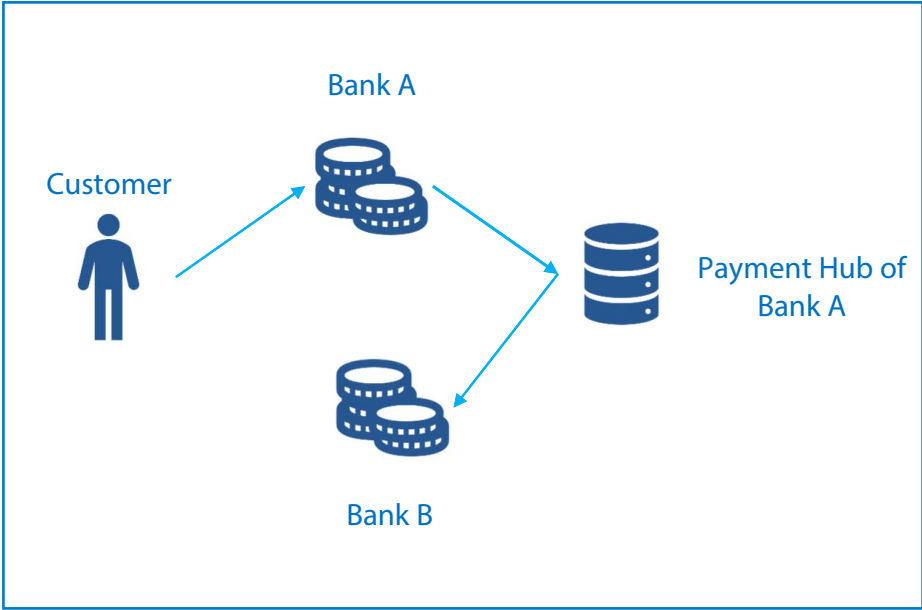
happens in a staggered manner which inadvertently induces delays. This impacts the time taken for first payment receipt from a client. Client on boarding, activation and deactivation can now be managed and controlled centrally reducing the time taken for maiden payment receipt.

Customer onboarding can be extended further to offer auto onboarding. As for example, a customer wants to maintain multiple accounts with the same bank. Instead of repeating the enter KYC process, existing information could be used.

Payment receipt & initiation

The process of payment receipt is riddled with legacy middleware applications which not only increases processing time but also increases costs. By creating a centralized and an integrated system, banks would be able to bypass middleware application. Their breakdown into micro services through simpler APIs would result in a reduction of processing time and allow for decoupling of complex processes allowing an omni-channel experience.

Also, payment hub could be opened as a payment initiator. A customer having account with Bank A and with Bank B would be able to make a payment from Bank A using his/her account in Bank B. In this case, payment hub of Bank A acts as payment initiator for Bank B. With the onset of revised Payment Services Directive (PSD2), traditional banks stand at an advantage vis-à-vis potential competition and challenger banks such as Sofort Banking, Trustly, etc. due to the existing payment infrastructure. Security is a critical consideration for adoption of any new service. Consumers would want the new payment service providers (PISPs) to be at least as secure as the current providers for payment services (traditional banks).





Validation as a service

Payment validation criterion goes through many changes throughout its lifecycle. It is riddled with legacy middleware applications which not only increases processing time but also increases costs. This makes integration a complex process due to heterogeneous regressions. By availing validation as a service through APIs for various processes from the marketplace, banks would be able to skip making these changes and avoid repeated regressions.

Orchestrate validation as a packaged service with the ad-hoc option of invoking country specific requirements (HK FPS, AU NPP, US Zelle, etc.).

Entitlement as a service

Entitlement defines who has access to what, when and how along with defining other limitations. Providing entitlement as a service would support end-customers in enabling them to set permission access and entitlements. This would also facilitate for the integration of bank channel and payment hub into a single and unified entitlement service allowing end-customers to authorize a third party to act on their behalf within defined limits. Banks would be able to reduce the complexity of integrating systems whenever a change is introduced. Existing APIs for payment initiation could also be second handed for users as the fact of having the right to payment enabling entitlement as a service for payments.

Accounting

Accounting and reporting is a stream of independent yet interconnected processes.

The back office is a deluge of accounting, reporting and process changes. APIs would help banks in managing this deluge through integration providing in-depth access into customer's financial history. They would also be able to host their own APIs on open collaboration platforms.

Payment analytics

Modern day banking is being increasingly driven by data. Information insights can be used for designing strategies and defining execution plans for optimizing revenue and cutting costs. Cloud based analytics framework will assist banks in targeted marketing based on customer spending patterns, improvements through revenue and pricing solution, optimize cost of service, realize cost of quality by 'first time right', reduce fraud and enhance risk management and better information handling of customer data. An extension of current portfolio into digital identity services can also not be ruled out.

An anti-fraud system could be developed to help banks with AML verification and sanctions check. As for example, a sanction restriction placed on a country by a member bank of the cloud platform could be communicated to other member banks.

Correspondent banking

Banks today are facing a double whammy of minimizing operational costs while keeping their technology and security infrastructure up-to-date. Additionally, an in-depth knowledge of their correspondent banking partner is required due to maturing regulatory requirement and evolving cyber security challenges. Open Banking will make banks future ready

through a lighter footprint and a faster time to market through a standardized, robust and secure cloud-based interface for direct and cost-effective access network access.

Merchants

According to a professional services firm, experience and expectation gap in banking is at 20%. The advent of open banking opens the door for merchants to provide an optimized shopping experience to customers and at lower payment costs. APIs will provide for newer buying opportunities and improved customer purchasing experience resulting in higher customer satisfaction. Purchases would be processed without cash or cards through single click secure payments with instant confirmation of funds received.

Customers

Just behind price and quality, customer experience is an important factor influencing purchase decisions for customers. The Open Banking solution will provide a unified app to customers for controlling all third-party permissions related to account information, payments and fund transfer confirmation. Detailed information of all the accounts and transactions will be available in one place.

APIfication will empowering financial institutions to securely and rapidly enhance their digital offerings using an ecosystem of third party applications and services. This should act as a catalyst for an evolution in the banking system leading to more transparency, more choice for customers and more control over personal data.

System Integrators	Attributes	Banks
<ul style="list-style-type: none"> Act as interface between user, merchant and banking system Help in generating new customers and revenue streams 	Customer onboarding, activation and deactivation	<ul style="list-style-type: none"> Significant cost save over creating and integrating different components of digital banking pyramid individually Client onboarding can be managed and controlled centrally
<ul style="list-style-type: none"> Extend current portfolio into digital identity services Decoupling services into APIs 	Payment receipt	<ul style="list-style-type: none"> Bypass middleware application for reducing processing time Centralized integration and management of various services
<ul style="list-style-type: none"> Bank channel and payment hub can be clubbed to create a single and unified entitlement service 	Payment validation as a service	<ul style="list-style-type: none"> Authenticate accounts without deposits Reduced complexity of integrating each system when a change is introduced Higher customer acquisition and retention rates
<ul style="list-style-type: none"> Cloud based solutions for accounting and regulatory reporting 	Accounting	<ul style="list-style-type: none"> Pull real-time balances Flows can be defined and managed from central integration system through exposed APIs
<ul style="list-style-type: none"> Assist banks in setting strategic direction and uncovering operational improvements Help partners in identifying areas for improvement 	Payment analytics	<ul style="list-style-type: none"> Improve topline and bottom-line through information insights Data lake of customer data points for structuring value-added services and increasing opportunities for cross selling
<ul style="list-style-type: none"> Facilitate efficient, secure and cost-effective correspondent banking 	Correspondent Banking	<ul style="list-style-type: none"> Track payments, ensure trouble-free payments processing, defend against cyber threats and financial crime and access the data required for comprehensive analytics
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: #c00000; margin-right: 5px;"></div> - Open API </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: #808000; margin-right: 5px;"></div> - Cloud </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: #6a5acd; margin-right: 5px;"></div> - Modernization </div> </div>		

Conclusion

The rise of FinTech's has democratized the integrated end-to-end banking service delivery model of process, products and experience, disrupting the control which traditionally banks have had over financial services industry. This democratization has enabled them to serve almost any financial need of the eligible population. Traditional banks can either operate as a "white-label" service provider, delivering products and services for other banks and third-party providers (TPPs) or evolve into a trusted lifetime advisor for customers, operating at the epicentre of customer centric banking models.



About the Authors



Bhargava Pamidighantam *Principal Consultant – Domain Consulting Group, Infosys*

Bhargava is a Principal Consultant with cards and payments practice with more than 16 years of experience. His core expertise is in consulting and project management in core payments, global messaging standards and payment products. Based out of Hyderabad, he has lead transformation programs across Europe and Asia Pacific. He can be reached at BhargavaKameswara_P@infosys.com



Pratik Agarwal *Senior Associate Consultant – Domain Consulting Group, Infosys*

Pratik is a Senior Associate Consultant with more than four years of experience in implementing transformation projects across finance clients. He holds triple masters in management from Antwerp Management School - Belgium, Fordham University - New York and Xavier Institute of Management - Bhubaneswar. His area of interest lies in emerging technologies, disruptive innovation and design thinking. He can be reached at Pratik.agarwal@infosys.com or at LinkedIn.

References

- <https://www.gartner.com/newsroom/id/2758617>
- https://www.pwc.com/us/en/advisory-services/publications/consumer-intelligence-series/future-of-customer-experience.html?WT.mc_id=CT11-PL1000-DM2-TR2-LS4-ND30-TTA5-CN_FutureofCXIEO-14&eq=infeditorial_hyken
- <https://www.forbes.com/sites/shephyken/2018/04/01/your-best-opportunity-for-growing-business-the-customer-experience/#25c0b7483a3e>

For more information, contact askus@infosys.com



© 2018 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.