Tech
Mahindra

USE CASE DRIVEN
APPROACH
TO OPEN APIS

EXECUTIVE SUMMARY

Technology is empowering businesses to increase their footprint while driving the profitability higher. The list of top five trends in any industry is incomplete without the mention of the transformation that digital technologies are bringing in.

Banks world over realize this as they take rapid strides towards digital transformation. There is increased focus on intelligent, data driven, multi-channel, efficient and personalized sales and service. This requires sharing of vast amounts of data across various enterprises and individuals. APIs have evolved into the de facto mechanism for communication across application and organization boundaries.

APIs no longer are mere enterprise integration service. APIs have evolved into services that deliver the capabilities to the end user without sharing the risks and costs associated with the service. Thus, it would not be a hyperbole to refer APIs as products.

Several banks, big and small, either have exposed their services as APIs or are in the process of doing so. Banking APIs have shown an exponential growth over the years.

For the investment in Open APIs to yield returns, identifying the correct APIs and driving the consumer adoption of APIs is the key.

Use Case Catalog serves this dual purpose.

Introduction

Data is the building block of information and information is the new currency in the digital world. As the information travels across the digital networks, more and more metadata increments the richness of the information.

However, data is scattered across multiple applications within and outside the enterprises. Thus, to get more value out of the data, communication between the data provider application and data consumer application becomes imperative.

The architectural approach for communication between applications has undergone a sea change. While it was remote procedure calls and message oriented architecture in the 70s, the next few decades saw service oriented architecture (SOA) take center stage. Today, APIs have become the de facto mechanism for communication between applications.

APIs are all pervading and inextricably intertwined with the digital ecosystem. It is impossible to imagine digital transformation without APIs.

Banks world over realize this as they take rapid strides towards digital transformation. Banking of the future is "Open" and banks are taking steps towards opening up their services as APIs.

Open APIs help banks to effectively and efficiently address the ever-evolving needs of their existing customer base as well as make lasting appeal to prospective customers.

Several banks, big and small, have either exposed their services as APIs or are in the process of doing so.

CitiConnect®, Citi's API connectivity platform reached a new milestone in August 2019. Since its launch in November 2016, the platform processed more than 157 million API calls and moved over $26 billion for clients using a set of over 50 APIs. Significantly, the number of API calls showed a marked increase from 18 million in November 2018 to 157 million API calls in August 2019 representing a growth rate of 750%.

Another case in point is the Saxo Bank. Saxo Bank A/S is a Danish bank with an online trading platform that empowers its customers to invest across global financial markets Saxo Bank realized as early as 2009 that managing the applications that connect to their trading platform is getting increasingly complex. These applications, written in different programming languages, used different ways to access the trading platform. What started as a program to simplify and standardize internal integrations metamorphosed into Open API initiative and led to opening up Saxo trading platform to the external world.

Though regulations like PSD2 have played their role in the API growth story as can be seen from the API portals of some of the banks that have just enough APIs for regulatory compliance, the real drivers are the benefits that both providers and consumers accrue.

APIs open the banks platform to world of opportunities. Not only does it enable bank's customers to embed banking into their enterprise applications and enable straight through processing to accrue benefits of error free, automated, quick and cheaper transactions but also it opens up doors to partner ecosystem led innovation.

Partner Ecosystem Led Innovation

Opening up the banking platform through APIs creates an ecosystem of partners where every participant in the ecosystem thrives on other partner's success.

It enables the banks to focus on the core service layer while the UI/UX and delivery channel layer is taken care by fintech players, third party developers, and white label clients.

APIs create network of network effect and help the bank multiply its reach through multiple channels and partners. APIs provide fintech partners a mechanism to integrate banking platform to their own channels. This enables partners to offer banking services to their customers. Banks benefit from access to a larger customer base.

Banks get advantage of a large developer community and fintech ecosystem that helps banks to leverage the expertise of a large developer community for building applications that would offer Bank services in ways not thought of earlier. As the services offered by partners get more acceptance, the bank gets more revenue. The partner's customers are indirectly bank's customers too.

To create or enter the API ecosystem, the banks must first devise an API strategy

An Effective API Strategy

Defining business goals and identifying APIs that would help achieve the business goals is the starting point to an effective API strategy.

There are at least a couple of approaches to API Identification, the most common being domain decomposition where the banks have a look at their product offerings and decide what services to expose.
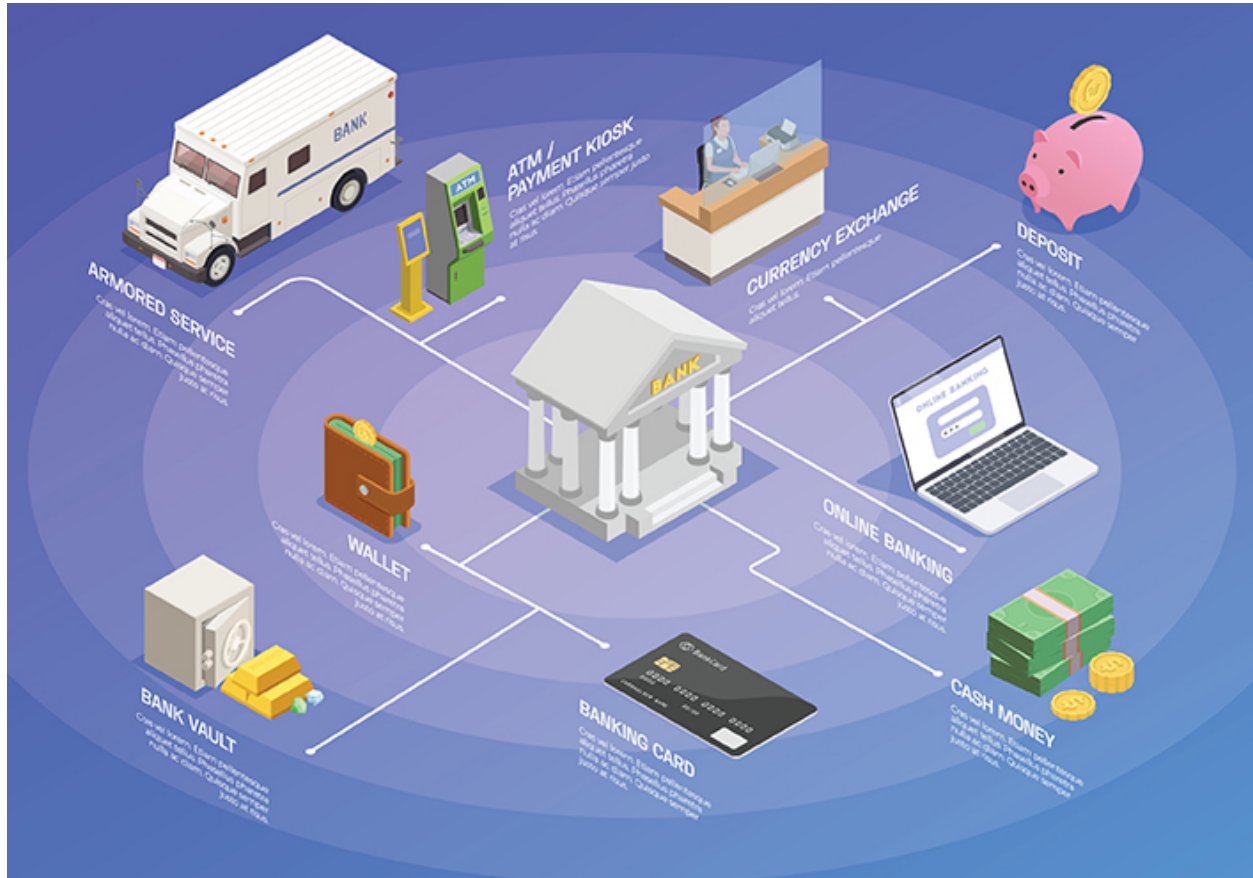
The other approach is use case driven and relies on the study of customer, their business, and their financial and non-financial interactions.

At the end of this step, the bank should have in its possession a document that articulates the API vision and a catalogue of API use cases.

Before moving to the assembly line that bring APIs to life, there are several other steps like API resource identification, technical architecture decision, security assessment, access control and API specification.

APIs are then developed, deployed, published and are ready to use.

At this stage, API monetization strategy comes into play and as value realization is usage linked, driving traffic to the published APIs becomes necessary. Innovative advertisement and promotions make the target clients realize the value in subscribing to APIs.

APIs run on "Create once, sell multiple" principle. Thus, banks should ensure the health of the APIs through careful monitoring. Careful analysis of usage patterns, defects, user requests helps the bank to take steps to achieve customer satisfaction on one hand and derive more out of APIs on the other.

By now, we realize that identification of APIs and then monetizing APIs by attracting user traffic require deep understanding of the consumers of API and their thought process.

This is where use case driven approach comes in.

Use Case Driven Approach to Open APIs

Traditionally, the focus of banking APIs has been on enabling channels like Internet Banking or Mobile Banking and often, the approach taken by the **banks is "Inside-Out",** i.e. look at the products and service offerings and then decide on what services to expose as APIs.

Use case driven approach is an "Outside-In" approach where the use case author looks at things from the bank customer's point of view.

Use case discovery relies on study of the value chain of the bank's customer, the transactions between the players in the value chain and the feasibility, desirability, viability analysis of transforming the transaction through APIs.

The use cases describe not only the new way of doing the existing business but also new business models that otherwise could not be imagined without APIs

Use Case Catalogue is a library of such use cases

Further, use cases seamlessly lead to APIs.

Identifying APIs is critical to the success of the API initiative. **Use Case Catalog, is a ready reference for identification of APIs** and empowers the bank to prioritize API development based on the number of use cases that an API enables.
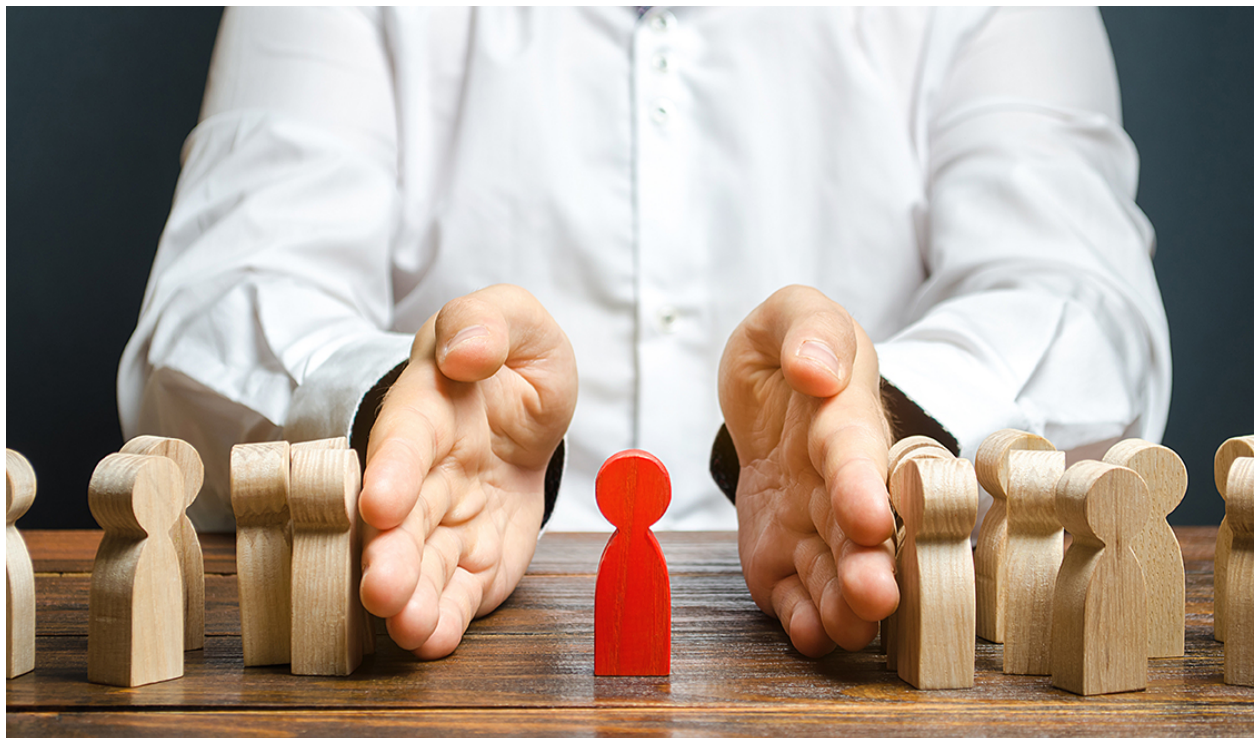
API monetization thrives on evincing interest, **justifying the utility of APIs** and subsequently driving the customers to subscribe to the APIs. Use case catalog helps the bank's customers visualize the use cases and see value in subscribing to APIs.

Through use cases, banks have an opportunity to not only display deep understanding of their customer's business and business goals but also to embed banking into the customer's day-to-day transactions.

To exemplify, let us analyze the value chain of the manufacturing industry. A manufacturer converts raw material to finished goods. Typically, the value chain consists of raw material suppliers, logistic partners, freight forwarders, warehouse providers, labor contractors, staff and finally the buyers of finished goods. Deep dive into the financial and non-financial transactions among these players in the value chain – be it payments, collections, foreign exchange, trade finance or account and liquidity management – is the basis for use cases.

Use cases are gradually becoming an integrated part of the API developer portals. Standard Chartered Bank's portal www.aXess.sc.com is a great example of portal design. It gives the user an option of having a look at the use cases, visualize the benefits and then leads them to the APIs that would put life to the use case in question.

As more banks take steps towards exposing APIs and expand their API boundaries beyond regulatory compliance, use case catalog would be tool that the banks must have in their arsenal.

Conclusion:

There is no second opinion on the benefits of exposing the banking services through APIs. Analysts, banks and industry experts speak in one voice when it comes to the business benefits of APIs. Use cases enable the banks to identify APIs that help them penetrate deep into the value chain of their customers thus driving API subscription numbers. Information Technology vendors are in a unique position to deliver banking use cases what with their understanding of banking, technology and presence in various industry verticals.

Tech Mahindra has leveraged its presence in industry verticals like Manufacturing, Telecom, Insurance, Healthcare, Travel, Shipping and Logistics and identified more than 200 API Banking use cases that can help kick-start bank's API journey. For more information, reach out to Tech Mahindra's API Banking Center of Excellence at APIBanking@techmahindra.com

Footnotes:

1- https://www.citibank.com/tts/about/press/2019/2019-0826.html
2- https://axess.sc.com/usecases

About The Authors

Amey Prabhu is a Principal Consultant with Tech Mahindra who leads the Trade Finance and API Banking Practice. In this role, he is engaged in designing innovative solutions in the API Banking and Trade Finance space leveraging internal capabilities as well as partnerships with FinTech firms. Amey has extensive experience in consulting, business analysis, project management and product development with deep understanding of technology as well as the domain landscape. Amey brings with him 17+ years of rich experience in the Banking domain and has been part of trade finance initiatives at multiple domestic and international banks.

Amey Ratnakar Prabhu, Principal Consultant, Tech Mahindra Limited

Amey.Prabhu@TechMahindra.com

Rajender Nalgonda is a Senior Business Consultant with Banking competency of Tech Mahindra. He has extensive experience on Business Analysis activities and proposing innovative solutions in Banking space levering internal capabilities and strategic partnerships. Rajender brings with him 16+ years of experience in Banking Domain in operations and IT Services with deep knowledge in Retail Banking, Lending (LOS, LMS & Collections) and Process Automation.

Rajender Nalgonda, Senior Business Analyst, Tech Mahindra Limited

RN00418998@TechMahindra.com

Disclaimer

Tech Mahindra

www.techmahindra.com

apibanking@techmahindra.com

www.youtube.com/user/techmahindra09

www.facebook.com/techmahindra

www.twitter.com/tech_mahindra

www.linkedin.com/company/tech-mahindra