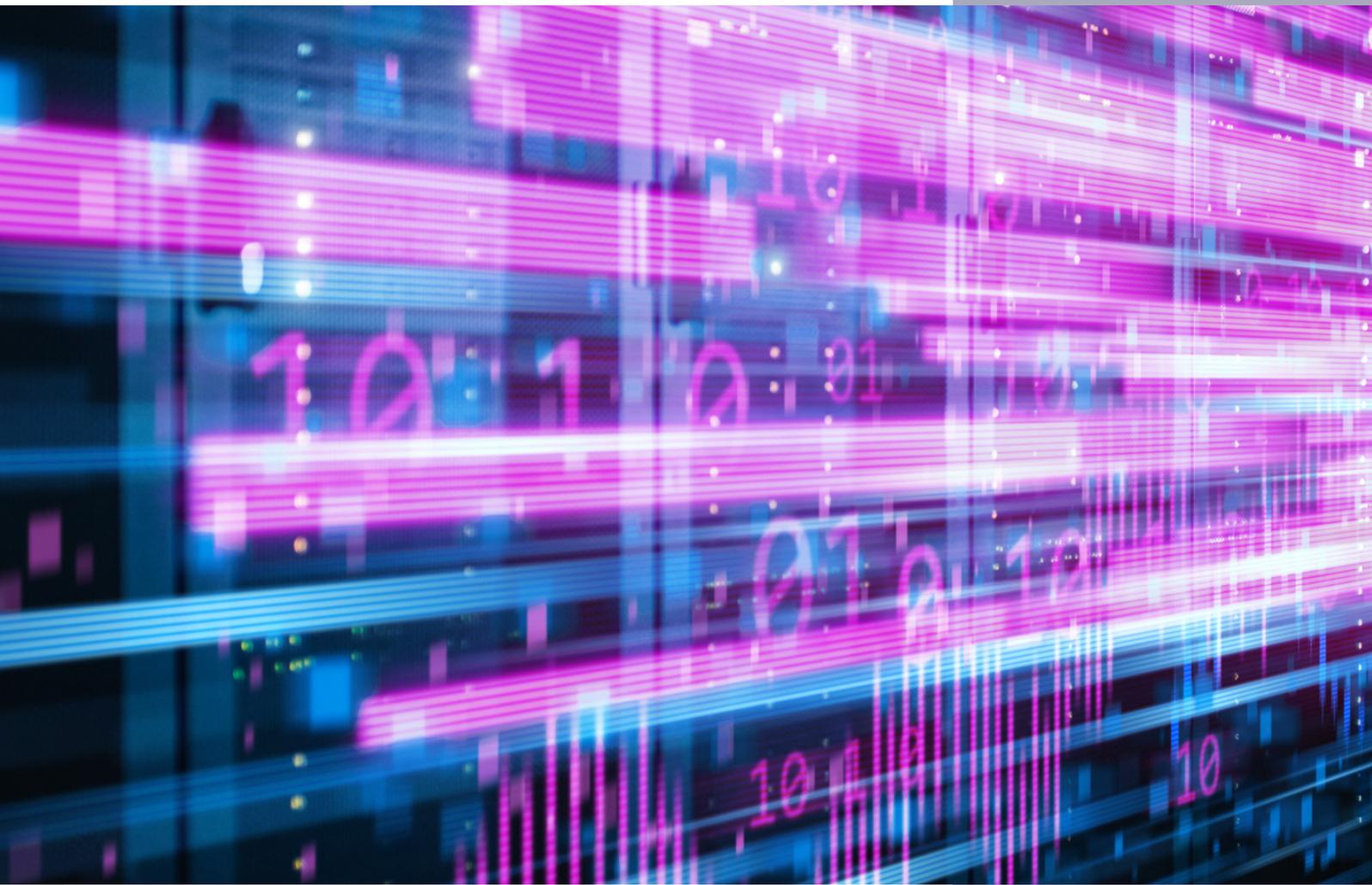




CUSTODY SERVICES

A DIGITAL ROADMAP FOR TIER 2-3 BANKS



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This whitepaper explores the custody services industry, identifies key drivers of change, emerging trends, challenges for Tier 2-3 banks and provides an outlook on the digital roadmap for these banks.

CUSTODY SERVICES | MARKET OVERVIEW

The custody services industry is highly concentrated, with intense price competition favouring large players. Almost half of the global assets are under the custody of the four most prominent players. In such a scenario, it is no surprise that in contrast to the 8.1% annual growth rate of assets under custody for the four largest custodians since 2015, their servicing fees increased by only 1.7% annually in the same period.

The digital assets market, which is < 1% of traditional assets, is still in its infancy. However, with the significant potential of digital assets, the need currently is for Tier 2-3 banks to focus on efficient and innovative custody services. The key is to consider and build IT capabilities around digital assets without adversely impacting servicing applicable to traditional assets.

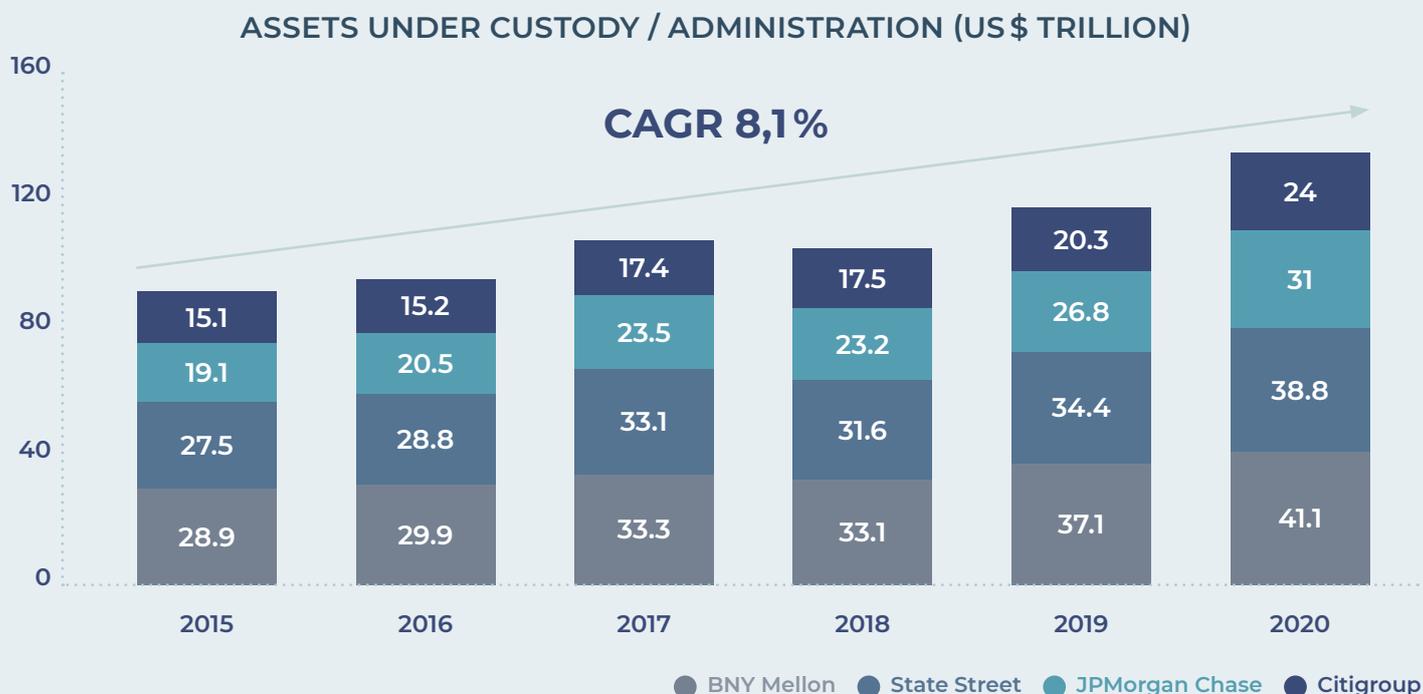


Figure 1: Largest Custodians | Growth of Assets under Custody (Source: Annual Reports, IBSI Research)

Significant competition is a key characteristic of the custody services industry. Intense price competition between specialized custodian banks, diversified full-service banks, and other custodians at the global or regional level, led to market consolidation resulting in some major global players who could leverage efficiencies of scale for large transaction volumes.

In the race for gaining efficiencies, leading custodians are increasing their IT budget. IBS Intelligence’s analysis of leading specialized custodian banks revealed that IT expenses as a percentage of revenues have grown from 7% to 11% approximately in the last decade. Diversified full service banks have also increased their IT expenses from 5% of revenues to 9% during the same period, indicating the growing importance of IT investments across sectors. Leading players in

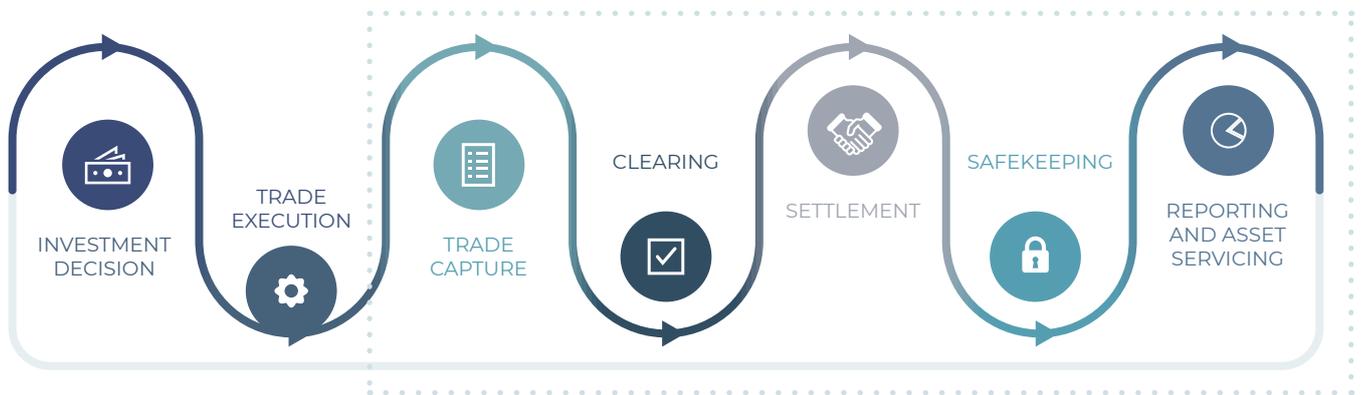
global custody services clearly spending more on their IT systems to keep up with the market dynamics.

In today’s competitive marketplace, Tier 2-3 custodian banks may better understand the local market dynamics than Tier 1 custodians. However, they face challenges due to the intense price pressure and innovative services offered by their competitors. Tier 2-3 custodian banks must retain their value proposition to clients, or else they may be replaced by those who can meet client needs better.

In 2021 the US\$ 30 billion custody services industry faces multiple external risks and pressures such as economic slowdown due to global pandemic, digitisation of the industry, stringent regulations, cyber risk, competition, and rising demand for cryptocurrencies.

FINANCIAL SERVICES | THE ROLE OF CUSTODIAN BANKS

Custody services originated to offer safekeeping services when assets were in physical form. Banks with vaults were a natural fit for providing physical safekeeping services. Having custody of assets enabled banks to provide services such as settlement and asset servicing. Custody services, since the early days, have evolved significantly. Asset type changed from physical certificates to electronic format, and services were not limited to safekeeping, settlement, and asset servicing.



Key Services Performed by Custodians

Figure 2: Custody Lifecycle | Services Performed by Custodians

Today, core offerings of a custody service include safekeeping, settlement (initiation, confirmation, settlement, and compliance), reporting and recordkeeping, cash and forex position management, securities servicing (income collection, corporate actions, tax reclaims), and issuance

for primary markets. Many of these services are standardized, repetitive, and have high volumes, making it easier for custodian banks to automate the services or outsource to specialists.

CORE CUSTODY SERVICES	VALUE-ADDED SERVICES
<p>Core custody services typically include traditional services that custodians offer to their clients.</p> <ul style="list-style-type: none"> • Safekeeping of assets • Settlement of transactions • Reporting and recordkeeping • Asset servicing • Cash and forex management 	<p>Value-added services enable custodians to offer a more holistic set of ancillary services to their clients.</p> <ul style="list-style-type: none"> • Fund services • Securities lending • Risk measurement and management • Compliance monitoring • Performance measurement

Figure 3: Custodians | Services Offered (Source: IBSI Research)

It is not enough for custodian banks to offer just core services as these have become commoditized. In addition to the traditional services, custodians now also provide a host of ancillary, value-added services. Analytics-based services such as performance management, risk measurement & management, and compliance monitoring are some of the services that are becoming important for asset managers.

As service requirements from investors continue to evolve, today's value-added services will also become a norm in the not-so-distant future and make way for new services. Custodian banks need to innovate to keep up with client needs, digitisation, and regulatory know-how or risk losing their market share to competitors who are willing to evolve their offering.

CUSTODY SERVICES | TECHNOLOGICAL TRENDS AND INDUSTRY INITIATIVES

The COVID-19 pandemic and cryptocurrency boom, or more generally the increase in acceptance of digital assets, are the latest catalysts of change in the custody services industry. However, the key factors that continue to drive changes in the industry are emerging client preferences, the rising pace of digitisation, and emerging compliance requirements.

	CHANGING CLIENT PREFERENCES	RISING PACE OF DIGITISATION	EMERGING COMPLIANCE REQUIREMENTS
KEY DRIVERS	<ul style="list-style-type: none"> • Need for superior insights to enable better decision-making • Enhanced interest in digital assets and cryptocurrencies 	<ul style="list-style-type: none"> • Potential to improve the efficiencies of existing systems • Exposure to new information security risks 	<ul style="list-style-type: none"> • Ensuring alignment with regulations such as T2S, CSDR • Digital market infrastructure
TRENDS	<ul style="list-style-type: none"> • Offering real-time reporting and self-service tools to clients • Enabling safe access to a broader range of assets 	<ul style="list-style-type: none"> • Streamlining and automating processes to improve efficiency and reduce costs • Enhanced cybersecurity measures for data protection 	<ul style="list-style-type: none"> • Offering risk and compliance monitoring services to clients • Develop solutions for digital assets and cryptocurrencies

Figure 4: Custody Services | Drivers and Trends (Source: IBSI Research)

3.1. CHANGING CLIENT PREFERENCES

Asset managers and investors will always seek to maximize returns. Superior access to data can enable asset managers to make better investment decisions. Custodians have access to vast amounts of internal data, which they can aggregate with external sources such as third-party FinTech providers and partners to offer superior insights. The ability to be data-centric and provide real-time information access to clients via application programming interfaces (APIs) will be crucial for clients looking to further their strategic advantage and improve operational efficiencies.

Moreover, new asset classes such as cryptocurrencies pique institutional clients' interests. Tesla, an electric vehicle and clean energy company, and MicroStrategy, a business intelligence software company, have already purchased Bitcoin worth over \$1 billion. Custodians are looking to extend their support for new asset types such as digital assets and cryptocurrencies to enable their clients to access these assets safely and securely. Leading global custodians such as BNY Mellon and State Street are exploring digital asset services use cases.

INDUSTRY EXAMPLE #1 | CUSTODY ECOSYSTEM FOR DIGITAL ASSETS

INITIAL CONTEXT

A leading Singapore-based bank wanted to explore opportunities in the space of digital assets and facilitate its growth. The daily trading volume on global digital exchanges was approximately US\$ 50-100 billion.

SOLUTION & BENEFIT

The bank plans to launch a full-service digital exchange, allowing investors access to tokenisation, trading, and custody of digital assets. The bank will leverage blockchain technology to develop this digital exchange and offer services such as security token offerings, digital currency exchange, and digital custody services.

3.2. RISING PACE OF DIGITISATION

Digitisation is impacting businesses, society, and the economy holistically. The custody services industry is no different. New services based on technologies such as Robotic Process Automation (RPA), Artificial Intelligence (AI), Machine Learning (ML), and advanced analytics are emerging. Innovative services based on these technologies have the potential to improve operational efficiencies and enhance client servicing.

Opportunities to enhance the custodian value chain by leveraging technologies are immense. RPA or AI-based systems can automate front-office functions such as KYC/AML checks or client onboarding. Post-trade execution ser-

vices such as trade capturing, clearing, and settlement are already automated. However, banks can use AI to minimize human intervention for failed trades or exceptions. Corporate actions can also be automated via RPA to reduce human intervention.

It is important to note that data is the backbone for new digital services. Availability of clean and reliable data is vital for systems based on technologies such as AI, ML, or advanced analytics. Missing data often leads to errors in the processing chain and reduces the efficiency of automation. Data and insights-driven businesses with solid IT foundations can leverage new capabilities more efficiently.

INDUSTRY EXAMPLE #2 | AUTOMATING CUSTODY ACCOUNT OPENING

INITIAL CONTEXT

One of the leading US-based multi-national banks wanted to enhance its custody account opening process, which has been a manual process involving lots of paperwork, spreadsheets, and faxes. COVID-19 pandemic slowed down the process further because the documents needed to be signed by multiple parties and many financial institutions restricted printing of sensitive documents at home.

SOLUTION & BENEFIT

The bank collaborated with a start-up offering a pre-trade onboarding platform, to automate the opening of custody accounts. Tested for six months, the AI-based solution can access a previously uploaded document required to open a custody account. The system will streamline the what was a cumbersome process and will help new funds get to the market faster.

Distributed Ledger Technology (DLT) or blockchain-based systems have the potential to disrupt trade settlement and post-processing. A shared ledger will allow all the stakeholders to access the latest information, making reconciliation systems archaic. A DLT-enabled move to T+1 or a shorter settlement cycle would be straightforward. Smart contracts pre-integrated into the DLT-based systems will also enable full automation of post-trade processing tasks, for instance, calculating NAV, subscriptions, and redemptions for a fund.

Digitisation also has some risks. It exposes custodians to new information security, or better known as cybersecurity, risks today. As a greater amount of data is stored and accessed through digital channels, it increases the risk of exposure of custodians' and clients' data. Since the primary role of custodian banks is the safekeeping of clients' assets, custodians must have stringent cybersecurity measures in place to protect confidential data. In an environment where remote operations are a norm, especially post-pandemic, the importance of a system with secure communications, secure file sharing, data encryption, and well-defined access rights has increased by multiple folds.

3.3 EMERGING COMPLIANCE REQUIREMENTS

Complying with regulations such as TARGET2-Securities (T2S), Central Securities Depositories Regulation (CSDR), Anti-Money Laundering (AML), or GDPR is critical for custodians. The industry, driven by the need for safekeeping of assets, continues to be under high regulatory focus. While all the compliance mandates may seem overkill, rule-based automation systems are well equipped to navigate the challenges. Leading custodians embed regulatory constraints into their workflows to ensure that processes are automatically compliant with the regulatory requirements.

In the current dynamic market of custody services, regulators and legislators are on their toes to ensure asset and client protection. Regulators, in some markets, are already laying out frameworks for handling digital assets. OCC (Office of the Comptroller of the Currency), an independent bureau that charters, regulates, and supervises all national banks, federal savings associations, and federal branches and agencies of foreign banks in the US, allowed OCC-regulated banks to offer custody services for virtual assets subject to some specific conditions. Some major economies such as China, Japan, and the UK, among others, are taking initiatives towards digital central bank currencies, while other markets such as Australia, Hong Kong, and Switzerland are making early strides towards digital market infrastructures.

INDUSTRY EXAMPLE #3 | CUSTODY SOLUTION FOR DIGITAL ASSETS

INITIAL CONTEXT

A leading financial securities services provider based out of France, having continually anticipated their clients' needs, wanted to develop custody solutions for regulated digital assets. The custodian wants to have an integrated custody solution for both traditional and regulated digital assets.

SOLUTION & BENEFIT

The financial services provider collaborated with a cloud-based digital asset security infrastructure firm, to successfully complete a proof of concept for transferring security tokens securely between market participants. Leveraging blockchain technology, the firms transferred tokenised securities safely, quickly, and transparently. The successful POC brings the financial services provider closer to achieving its ambition and the firm is now well positioned to offer new services to its clients once regulations for digital assets are in place.

4 TIER 2-3 CUSTODIAN BANKS | KEY CONSIDERATIONS

TIER 2-3 CUSTODIAN BANKS | KEY CONSIDERATIONS

The custody services industry is in flux. Clients' demands, opportunities and risks due to digitisation and regulatory mandates are driving change. A digital transformation - if not already underway - is imminent for Tier 2-3 banks. However, there are a couple of questions for which banks must find an answer first:



- How to prepare for the future of custody services?
- How to identify and prioritize the right use case?

4.1. PREPARING FOR THE FUTURE OF CUSTODY SERVICES

The next wave of innovations is occurring in custody services from digital assets and Distributed Ledger Technology (DLT) based infrastructure perspective. Select Tier 1 banks are already leading the way by exploring the use cases. They are in the advanced stages of developing blockchain-based platforms and solutions for digital assets. Interestingly, almost all these banks are collaborating with start-ups or technology specialists for these initiatives.

Taking a cue from the early movers, pursuing innovations and new solutions alone would not benefit Tier 2-3 banks. Banks would be prudent to identify start-ups, leading technology players, and peer-banks in this space for collaboration. A collaborative effort to develop new competencies would help banks respond to the market needs swiftly and integrate with the existing set of offerings.

4.2. IDENTIFYING AND PRIORITIZING THE RIGHT USE CASE

Identifying the right use case for digital revamp is one of the key considerations for custodians. What works for Tier 1 custodians may not work for Tier 2-3 banks. This is because Tier 2-3 custodian banks may not have the required scale to automate some processes. Automation solutions offer benefits in terms of better speed, control, and lower error by automating repetitive, rule-based tasks. In the absence of economies of scale, firms may find it challenging to achieve a positive return on investments. A factor that favours Tier 2-3 banks is that they may have a lower burden of legacy systems - with lesser drag, these custodian banks may be better off implementing the latest digital initiatives to obtain an edge over the competition. And change will be easier and cheaper for Tier 2-3 banks.

Successful banks are adopting a three-step approach to better understand the values that digital systems may add.

IDENTIFY MARKET REQUIREMENTS: Identification of latest initiatives in the global custody services space and the market requirements, such as customer demands and regulatory initiatives, for the bank's region and target segments.

UNDERSTAND SERVICE GAPS: Analysis of bank' services and identification of those that do not meet customer and business expectations, along with any services that the bank may not be offered based on the market requirements.

ESTABLISH VALUE FROM DIGITIZING: Estimating the effort involved for all digital initiatives identified in the previous step against the value it brings (return on investments). The focus must be on identifying the technology that fits best. For instance, RPA would be a better fit for a standardized process having a large volume of transactions. However, for a process that encounters exceptions frequently, an AI-based automation system would offer more value by reducing the frequency of human intervention.

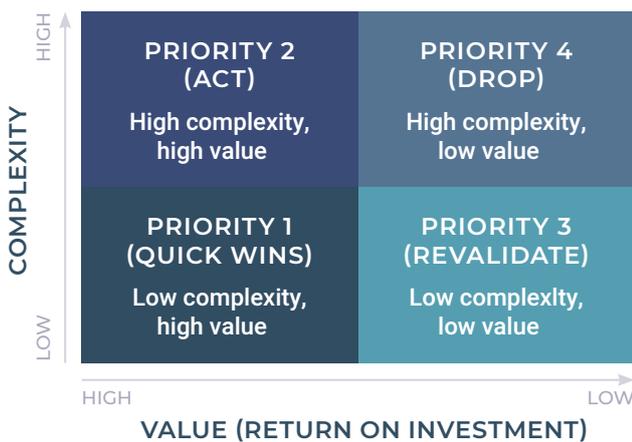


Figure 5: Priority Matrix | Digital Initiatives (Source: IBSI Research)

The three-step approach can help custodians to put together a priority matrix of use cases. This priority matrix will help banks better plan their digitisation journey. Use cases in the priority matrix will, of course, vary for banks based on their current state.

DIGITAL ROADMAP FOR TIER 2-3 BANKS | AN OUTLOOK

A compelling vision is the key for banks that are embarking on a digitisation initiative to reinforce their digital capabilities. To get the most from their digitisation initiative, Tier 2-3 custodian banks can devise their digital roadmap based on the following journey:

- Set a Vision (Pre-requisite)
- Secure Quick Wins (Short - Medium Term)
- Scale-up Initiatives (Medium - Long Term)
- Institutionalise Innovation

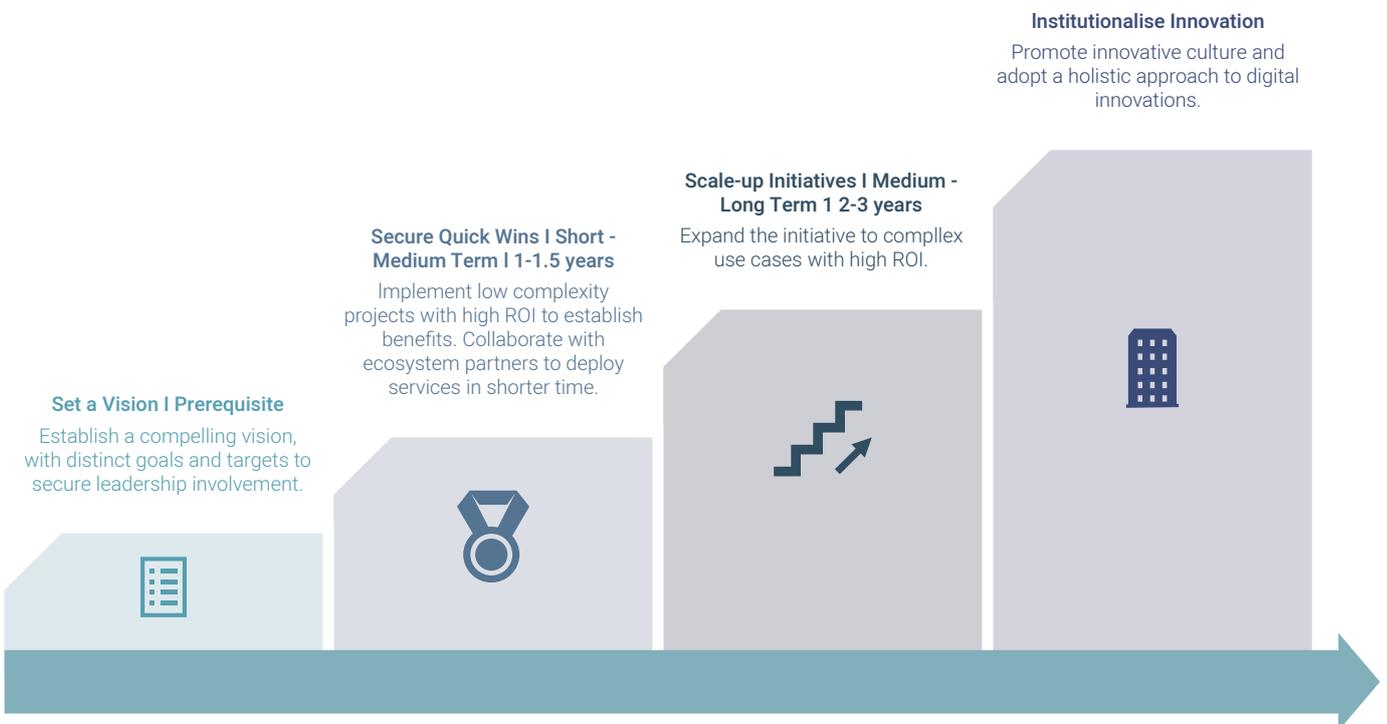


Figure 6: Digital Roadmap of Tier 2-3 Banks | An Outlook

SET A VISION (PRE-REQUISITE):

Custodians must decide on their compelling vision. The vision must include distinct goals and targets that the organisation would aim to achieve – such as reducing costs or improving net promoter score. Establishing a compelling vision can go a long way in securing leadership commitment and involvement. Leadership involvement is one of the most critical factors for the success of any digital initiative. If the leadership lacks commitment, there is a high probability that the digital initiative might not achieve its objectives.

SECURE QUICK WINS (SHORT - MEDIUM TERM) | 1-1.5 YEARS:

Focusing on low complexity and quick payback use cases in the priority matrix (Figure 6) will offer a host of benefits. These quick wins can demonstrate the benefits offered by digital initiatives, accelerate innovations, and impact the organisational culture in the long term. Rather than developing some solutions in-house, Tier 2-3 banks can engage with ecosystem partners to acquire new solutions and accelerate deployments.

Priority 1 (Quick Wins) use cases typically include automated settlement, reconciliations, and tax reclaims. Once a custodian has implemented some initiatives in its Quick wins quadrant and are witnessing positive outcomes, the focus must shift to building more complex capabilities.

SCALE-UP INITIATIVES (MEDIUM - LONG TERM) | 2-3 YEARS:

At this stage, custodian banks can implement medium to high complexity initiatives having a high ROI. This stage is of strategic importance to custodians because, at this point, they can plan to transform an entire process rather than just digitizing a few tasks in it. For instance, after implementing RPA based settlements as a Quick win, a custodian may prioritize augmenting its trade capturing system with AI to secure data from all the sources and minimize human intervention. The newly implemented AI-based system complements the existing automated settlement process and offers greater synergies.

Priority 2 (Act) use cases typically include an automated client onboarding system, intelligent trade capturing and settlement process, self-service reporting with access to real-time dashboards, and automated corporate actions and mandates.

INSTITUTIONALISE INNOVATIONS:

Access market requirements again and recreate the priority matrix based on results. Leveraging successful experience from past implementations, custodian banks can begin with Quick wins again, albeit with better preparedness and more conviction this time.

In summary, the custody services industry is highly concentrated. Prominent players also benefit from the economies of scale for digitisation initiatives, making it difficult for Tier 2-3 banks to remain competitive. Tier 2-3 banks must play to their strengths to retain their value proposition for clients.

From a Tier 2-3 custodian perspective, it is crucial to keep up the pace of innovation by developing new services and enhancing operational efficiencies. The key here is not to get influenced by what other players or Tier 1 banks are doing. Clarity on the needs of customers and current service gaps will help Tier 2-3 banks identify and prioritise the next phase of their journey. A journey, which can be made easier and faster by capable ecosystem partners and technology specialists.

6 CONCLUSION

CONCLUSION

The custody services industry is highly concentrated. Prominent players also benefit from the economies of scale for digitisation initiatives, making it difficult for Tier 2-3 banks to remain competitive.

Digitisation, client preferences, and regulations are changing the market landscape for custodians. From a Tier 2-3 custodian perspective, it is crucial to keep up the pace of innovation by developing new services and enhancing operational efficiencies. The key here is not to get influenced by what other players or Tier 1 banks are doing. Tier 2-3 banks must play to their strengths to retain their value proposition for clients. A market assessment and an inward look will help banks identify their current service and competency gaps, which can be the stepping stone to a robust IT system.

A digitisation initiative with set goals and use case prioritisation based on value and complexity will have a better shot at success. Easy to implement use cases with high ROI will pave the way for further complex implementations.

Custodian banks must remember that they are not alone in this digital journey. Technology experts, ecosystem partners, and even their peers can be useful partners for co-innovation. Capable technology specialists can boost this journey and help Tier 2-3 banks be better prepared for a market that remains in constant evolution.