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eMerge
QUARTERLY

THE BUSINESS IMPACT EDITION

Fragmented architecture will kill your bank

Dukhan Bank streamlines its debt collection and reduces agents' case handling time (Case Study)

Edition 20

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From the editor's desk

Dear Readers,

If 2025 was defined by the relentless pace of digitisation, 2026 will be defined by its economic reckoning. We have moved past the era of "digitisation for automation" and entered a period where technology must deliver tangible business impact.

In our quarterly publication, eMerge, we have deliberately pivoted our narrative to meet this moment. We aim to dismantle the silos between the technology stack and the boardroom, equipping you with the insights to lead with clarity and confidence.

The insights within this edition explore the strategic paradoxes we navigate as leaders, beginning with the foundational necessity of structural integrity. Kenneth Chitando of **AFC Bank** opens with a critical warning on how architectural fragmentation acts as a silent barrier to institutional resilience, a challenge that Raju Daryani addresses head-on by providing a disciplined **ROI Playbook** designed to ensure core transformation remains a value engine rather than a cost centre. As we look toward macro-realities, Selvakumaran S. examines the seismic shifts within the $27 trillion **stablecoin landscape** and its implications for Central Banking, while Viral Khandwala pivots to the future of credit, demonstrating how **AI-first lending** can transform traditional debt recovery into "predictive customer care." We further round out this global perspective by showcasing tangible and measurable success of **Dukhan Bank,** where business impact practices are brought to life.

These perspectives reflect our core philosophy: a brand ethos of delivering impact through customer centricity. I am deeply grateful to the leaders who contributed their expertise to this edition, helping us bridge the gap between technological possibility and business reality.

I hope these articles spark meaningful dialogue and provide a fresh lens for your transformational journey in the year ahead.

As we shape the discourse for our next edition, we invite visionary banking leaders to share their insights and success stories with our global community. If you would like to contribute an article to our upcoming issue, please reach out to our editorial team at **marketing.gcb@intellectdesign.com.**

Happy reading!

Warm regards,

Mithu Gupta
CMO and Head - User Experience, Consumer Banking,
Intellect Design Arena

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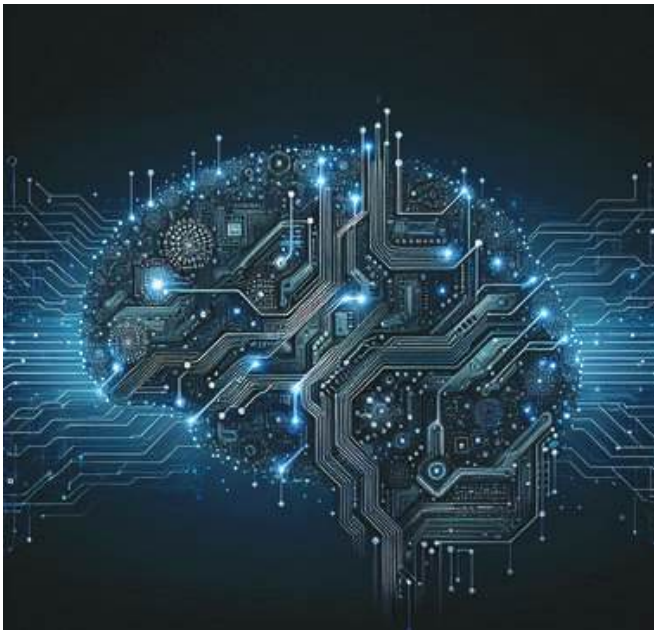
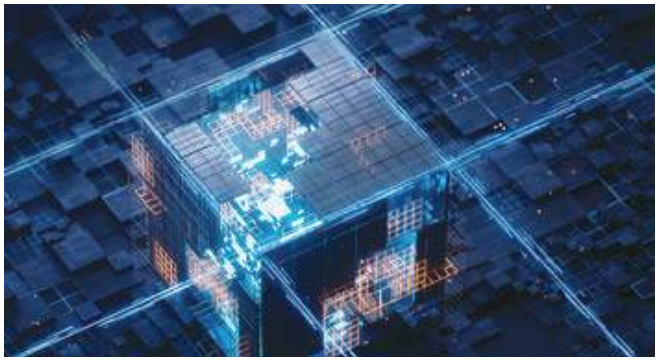




CUSTOMER SPEAK

Fragmented architecture will kill your bank

When financial systems operate in fragments, risk travels faster than information—discover why incremental updates are no longer enough to save your bank.

A perspective from:

Kenneth Chitando

Transformational Banking Leader
Visionary Corporate Strategist
Managing Director at
AFC Commercial Bank

About the Bank :

AFC Commercial Bank is a prominent, licensed commercial bank in Zimbabwe, regulated under the Reserve Bank of Zimbabwe (RBZ). As a key entity within the government- owned AFC Holdings (formed in 2021 by amalgamating four institutions for enhanced synergy), the bank plays a crucial role in supporting the agricultural sector while offering comprehensive banking services to the wider economy.

The conventional view of digital transformation, treating it as a project with a finite **"Go-Live"** date, is fundamentally flawed. Across the global financial system, institutions operate in an environment where **liquidity, data, identity,** and **risk flow** in real time.

For us at AFC Commercial Bank, we realised that our relevance would be defined by the speed and coherence of our digital architecture, not just our branch network.

The foundational systems many of us relied on were built for a different era, defined by **batch windows, siloed departmental functions,** and slow, clearly separated operational lanes. A deeper look at our banking architecture exposed a tension: the Zimbabwean market was operating at **real-time speed,** while **our infrastructure was struggling with batch-time logic.** Our strategic imperative was to transform our systems to realize our ambition of becoming 'the bank of the future' and bringing banking a **lot closer to most of our customers.**

The architecture burden of fragmentation

The root cause of stagnation for many banks is architectural fragmentation. Before our transformation, our systems exhibited classic vulnerabilities: key functions like core banking, loan origination, and digital channels operated in silos, while risk and inefficiency directly impacted our ability to serve clients.

This fragmentation presented multiple barriers to competitive operation at AFC:

- **Operational friction:**
  The processes required to launch new products were slow and cumbersome, directly undermining our strategic drive for a **quick go-to-market (GTM)** and achieving necessary **cost effectiveness.**

- **Data incoherence:**
  Customer data, spread across multiple ledgers, made it difficult for our teams to have a 360 degree view of the customer's portfolio, generate **reliable insights** or hold **meaningful discussions with clients.**

- **Customer experience gaps:**
  The fractured environment limited our ability to deliver on the promise of **anytime & anywhere** banking, hindering our ability to serve clients across all segments.

Fragmentation was once a manageable inconvenience; for our bank in the current economy, it is a **systemic barrier to relevance.**

Incremental modernisation does not work for everyone

We understood that spending years on incremental modernization—refreshing databases, layering APIs, and enhancing user interfaces—would not suffice. Our insight confirmed that **incremental modernization does not resolve foundational architectural challenges:**

- **Siloed systems** cannot be stitched into a coherent customer fabric.
- **End-of-day processes** cannot be converted into event-driven intelligence.
- **Manual interventions** cannot be eliminated by simply adding new front-end features.

We realized that chasing the digital frontier required a shift from layering to a complete architectural overhaul. This necessitated adopting the intelligent core.

The intelligent core: An operating philosophy

Our transformation was driven by the realization that achieving our vision required an intelligent core—a system designed around the principles of continuous service and unified intelligence. This philosophy dictates that:

- Processing is real-time, not periodic.
- Data is unified, ensuring seamless customer journeys.
- Services are decomposed (modular), not monolithic.

The implementation of a modular core solution was the essential architectural condition that enabled our agility and allowed us to roll out solutions much faster.

Intellect Design Arena, as our transformation partner, provided the engine for our ongoing evolution and supported this journey with their global expertise.

The impact: Metrics of continuous relevance

The true measure of this shift is its impact on our market and our business. The intelligent core allows AFC Commercial Bank to sense, interpret, and act at the speed of the modern economy:

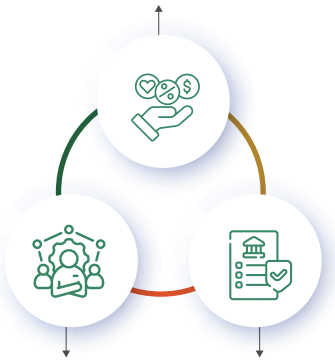
Business impact	Transformation metric
Market adoption	**Up to 65% revenue** is generated digitally,validating the market's high appetite for our modern channels.
Customer loyalty	**We recorded higher NPS,** a direct outcome of providing seamless operations and ease of access.
Operational empowerment	**The system is easy to operate,** freeing up our staff's time for value-added activities —a testament to efficient design.
Product agility	The modularity allows us to **launch new products quickly,** sustaining our competitive edge.

Table : AFC Bank's business transformation powered by Intellect

Key considerations: Governance and sustaining the momentum

Success of this magnitude demands rigorous commitment beyond the technology investment. Our journey was governed by three foundational prerequisites:

Establish clear business benefits: Defining tangible outcomes (like digital revenue share) from the start.

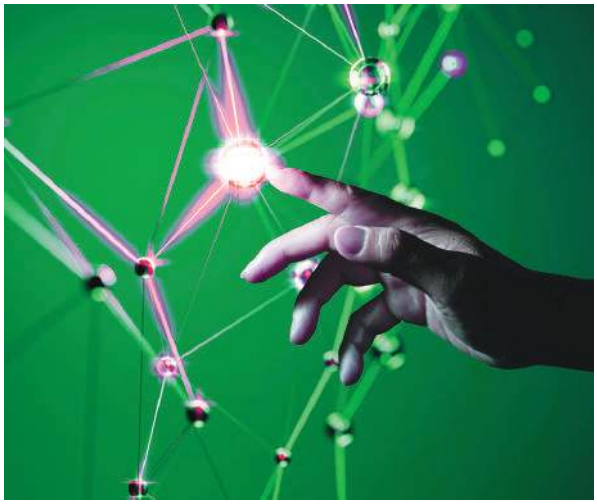


Galvanise internal leadership & board: Securing the mandate for change was sustained institutionally across our bank.

Establish clear governance: Maintaining disciplined oversight throughout the multi-year journey.

Image : Goals of AFC Bank digital transformation

Architectural resilience requires a commitment to continuous support. Intellect ensures stability throughout the go-live process to maintain the trust and experience of our customers and our team.



Closing reflection: Transformation is the irreducible constant

The new mandate for banks is simple: stop building for the transaction and start building for the journey—creating systems that evolve at the pace of customer expectation.

The transformation journey is not a one-off project; it is a perpetual state of evolution for AFC Commercial Bank. We are continuously evaluating and refining our internal processes with the view to introducing additional solutions that further enhance the level of ease of doing business for our clients.

For the industry, the lesson from our experience is clear: Transformation helps organizations stay relevant. Fragmented architectures are incompatible with real-time finance. The intelligent core is the institutional foundation for growth, digital innovation, and competitive resilience. We believe that banks that embrace this architectural shift, albeit with the right transformation partner, will secure their place as relevant players in the next decade of finance.

From fragmented systems to intelligent cores: The new architecture mandate for central banks and financial institutions

A perspective from:

Selvakumaran S

EVP & Partner, Central and Consumer Banking,
Intellect Design Arena
Curriculum Director,
Intellect Oxford School of Core Banking

Across global financial systems, a deep architectural shift is underway. Central banks, once operating in predictable, linear environments are now anchored in an ecosystem defined by immediacy, interoperability, rapid innovation, accelerated AI adoption, tokenized assets & deposits and increased geopolitics, regional conflicts. These trends are changing the overall financial landscape including the cross-border transactions, capital markets, liquidity, velocity of the money in the economy and systemic risk.

Speed, cost, transparency, availability and scale are at the centre of the modern financial infrastructures that drive the nations, systemically critical institutions including the central banks and national/cross-border payment infrastructures and commercial banks.

India being a large and rapidly evolving economy illustrates this shift vividly: the country's regulatory push toward real-time payments, supported by UPI and the broader digital public infrastructure stack, has transformed transactional behaviour at scale. UPI processed **131.2 billion transactions in FY24 (NPCI, 2024)** and now peaks at **12,000+ transactions per second,** meaning liquidity and settlement exposures oscillate continuously rather than once a day [(1) (2).]

This real-time behaviour also extends to identity and cyber risk, where compromised credentials move rapidly across interconnected systems, more than **70% of cyber intrusions globally, now originate from identity compromise** (Microsoft Digital Defense Report 2024) [(3).] RBI (Central Bank of India) now operates 24x7x365 with continuous clearing to support this shift in the financial landscape. [(4)]

Central banks across the world, however, still rely on architectures built for an earlier era, characterised by batch windows, siloed operations with manual interventions for many areas which otherwise can be fully/partially automated, and dated technology stack. The legacy operating model is increasingly misaligned with a financial ecosystem that operates without pause.

The result is a structural tension: money, data, and risk now move in real time, while the underlying infrastructure still operates in overnight cycles. Also, a recent survey amongst central bankers across the continents for Intellect Oxford School of Central Banking thought leadership programme, reveals that a medium complexity policy implementation takes about 6 months for the implementation in the world revolving in real-time.

84% of central banks acknowledged that digital transformation is their highest priority while 49% of them indicated that addressing cybersecurity challenges is the priority [(5).]

ISO20022 alignment to G20 cross border payments goals of Cost (global payments avg. @1% and remittances @3%), Speed (75% within 1 hr and the rest within 1 day), Transparency, and access are

further increasing the demand on the national and cross border infrastructures [6].

And this tension is being amplified by four converging shifts that are redefining the role and responsibility of central banks:

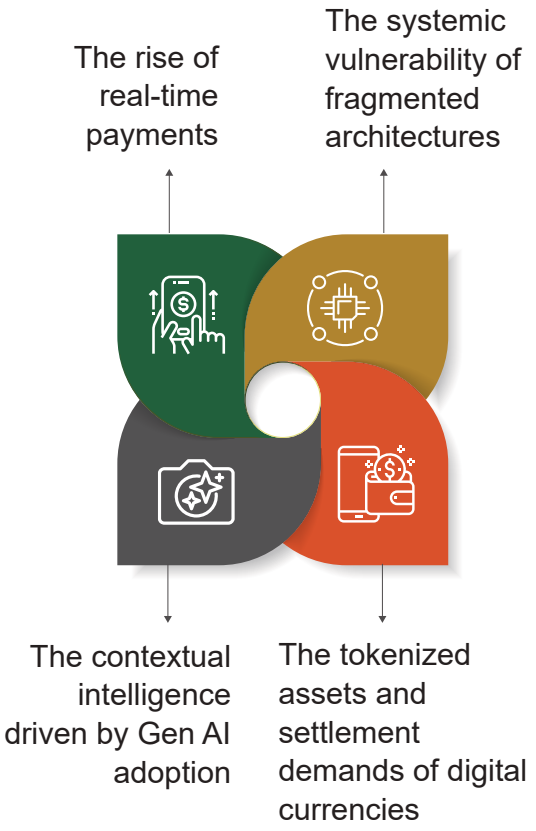


Image : Key central banking trends in 2026

Together, these pillars explain why central banks must re-imagine their core architecture using first principles thinking to support the rapidly evolving landscape.

> Speed is no longer an advantage. It is a default condition in which central banks must be able to survive.

The rise of real time payments

The global march toward real-time payments has fundamentally reshaped the expectations placed on central banks. India's UPI processed **131.2 billion transactions in FY 2024** with a 20% year-on-year rise (NPCI, FY 2024). Brazil's PIX handles more monthly payments than credit and debit cards combined. FedNow has pushed the United States into 24×7 instant clearing. The BIS now notes that over 91% of central banks are modernizing RTGS infrastructure to real-time settlement standards (BIS Payments Report, 2024) [7].

Real-time movement means real-time liquidity risk, real-time fraud patterns, and real-time supervisory expectations. Legacy core systems, designed around end-of-day reconciliation, were never intended for continuous settlement cycles.

As the pace of payments accelerates, the pressure on central banks is no longer just operational, it has become existential. In 2024, Stablecoins facilitated a staggering $27.6 trillion in payment transfers (surpassing the combined volumes of Visa and Mastercard) and as the velocity of money accelerates, it exposes the next challenge: fragmented systems that cannot respond as a unified whole [8].

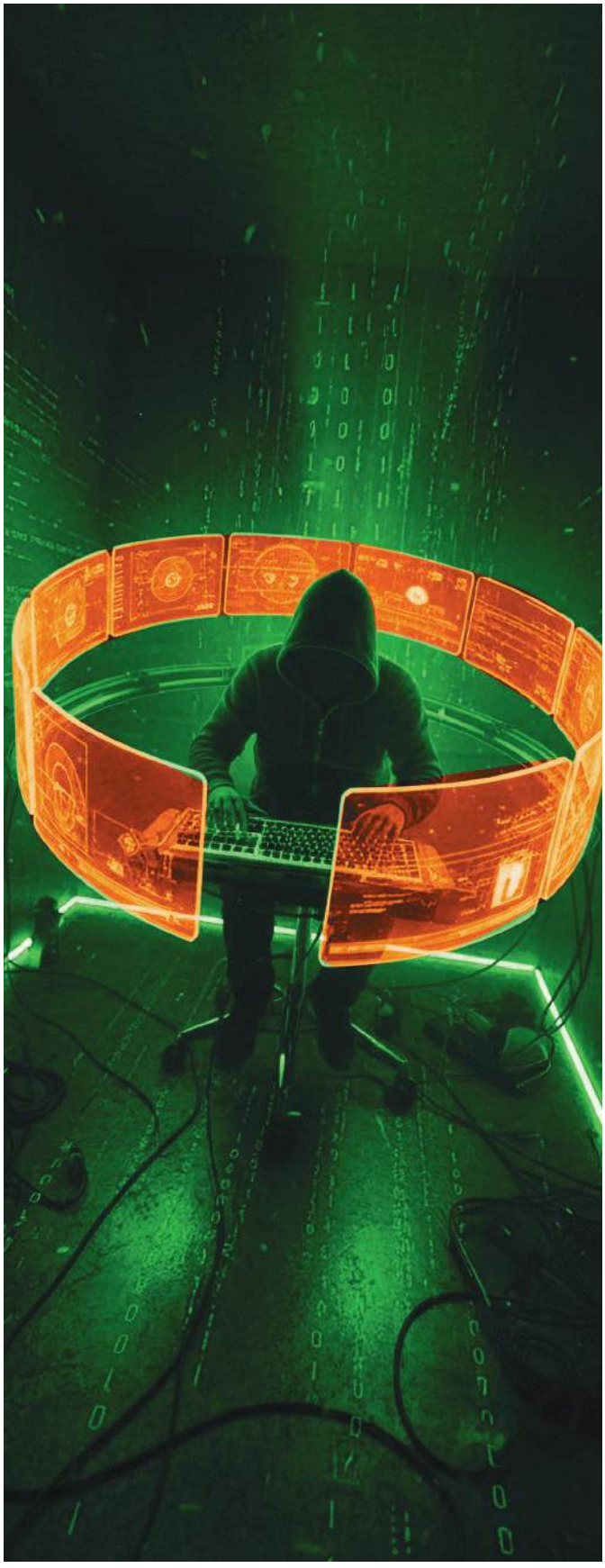
The on-chain data—transactions verified and recorded on a blockchain—suggest that about $250 billion of stablecoins have been issued. Tier-1 banks including JPMC are now jumping to launch tokenized deposits.

The systemic vulnerability of fragmented architectures

One of the most persistent vulnerabilities in financial infrastructure comes from fragmentation. When the market operations are not fully supported by real-time advanced collateral management, when security/fund settlement infrastructures are driven with manual intervention & reconciliation, when supervisory analytics are detached from settlement platforms, when government banking and reserves operations run on separate technology stacks, risk can propagate faster than alerts can surface.

This fragmentation is especially dangerous in cybersecurity. The Microsoft Digital Defense Report 2024 reveals that 74% of global intrusions originate from identity compromise, exploiting the gaps where one system ends and another begins.

A breach or anomaly no longer stays confined to a particular function; it spreads laterally across systems that were never engineered to talk to each other in real time. Fragmentation may once have been a manageable inconvenience. In today's architecture, it is a systemic risk and nowhere is this more evident than in the way artificial intelligence initiatives are impacted by legacy design/ecosystem.



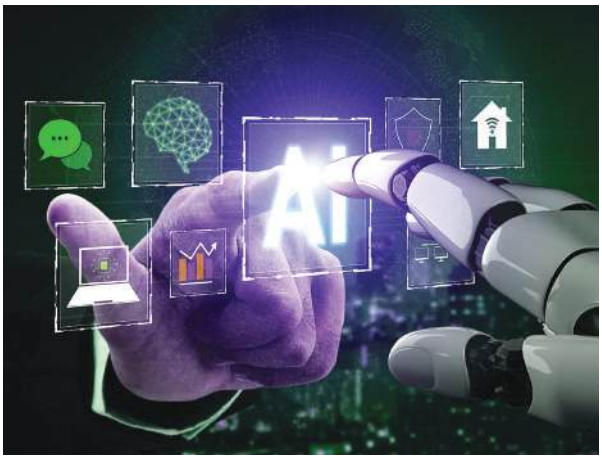
The contextual intelligence driven by Gen AI adoption

GenAI and advanced analytics are entering the heart of central banks and commercial banks: predicting the currency requirements, forecasting policy scenarios, scanning market movements, detecting anomalies in payment data, and enhancing supervisory intelligence. But AI cannot thrive or even remain safe on fragmented or inconsistent datasets coupled with processes supported by siloed systems.

A successful AI implementation for a highly regulated banking industry requires a stronger AI solution that takes care of the triple constraints - cost/speed/accuracy, GDPR, Personal/sensitive data protection, comprehensive governance including a detailed track, trace and trail, auditing, prompt defense/toxicity management, comprehensive access control at various levels including the data/documents used to train the model or build the RAG. EU and US are actively working on the regulations to ensure safe/secure implementation of AI which includes EU AI Act. The similar initiatives are being taken across many countries.

Gen AI is likely to bring substantial shift to global economies in the coming years. Goldman Sach predicts that Gen AI is likely to add over 7% or 7 trillion dollars to global GDP in next 10 years [(9)].

With big-techs investing hundreds of billions of dollars in LLMs and the data centers, this wave has pulled not only financial industry but pretty much all the industries into adopting the AI in their business to enhance



> AI should be best leveraged to re-imagine the business process instead of a bolt-on tool in the existing processes like Robotic Process Automation

the service delivery across the customer value chain. McKinsey expects about 70% reduction in certain cost categories and a 15% to 20% on the aggregate cost base for banks due to AI [(10)].

G7 regulators have signaled that **AI-assisted supervisory tooling will become standard by 2026 and beyond.** Yet AI models amplify response based on the environment in which they are placed. In a unified, well-governed data architecture, they accelerate insight. In a fragmented one, they magnify incoherence, creating false alerts or missing early signals.

This is why central banks are increasingly concluding that **AI-readiness is not a feature, it is an architectural demand.** This leads directly into the fourth pillar redefining the future core.

The tokenized assets and settlement demands of digital currencies

Across continents, central banks are rapidly advancing their experimentation with digital currencies. The BIS reports that 94% of central banks are researching or piloting CBDCs (BIS Annual Survey, 2024). Tokenized settlements, cross-border experiments, and hybrid models—where both account-based and token-based money coexist—are becoming more common.

The increased acceptance of Tokenized Asset and Deposits across the world over the last 1.5 years appear to have taken the momentum out of CBDC initiatives. But the underlying truth is simple: traditional RTGS systems cannot natively support tokenized value. Nor can they execute programmable settlement or atomic delivery-versus-payment. Digital currencies do not merely introduce a new payment instrument; they redefine how central infrastructures must be designed.

These four pillars together make one truth unavoidable: incremental modernization is no longer enough. A new core is required.

Why incremental modernization falls short

Most central banks have spent the last decade modernizing - refreshing databases, renewing applications, layering APIs, and enhancing user interfaces. But modernization does not resolve foundational challenges:

- Batch processes cannot be converted into event-driven intelligence.
- Siloed systems cannot be stitched into a coherent supervisory fabric.
- Tokenized assets cannot be served from account-only ledgers.
- Real-time settlement demands cannot be met by architectures built for overnight cycles.

This is why a new category of central banking architecture is emerging, the intelligent core.

> An intelligent core is not a collection of modules; it is an operating philosophy.

The rise of the intelligent core

An intelligent core is designed around principles that reflect the realities of the modern financial system:

- Data is unified, not distributed
- Processing is real-time, not periodic
- Human in loop for enhancing operations, not for running the entire operation manually
- Recon is built-in, not a mandatory evil
- Security is zero-trust, not perimeter-based
- Services are decomposed, not monolithic
- AI is embedded, not bolted
- Currency is hybrid - account-based and token-based
- Interoperability is built-in, not customized

This is the architecture that allows central banks to sense, interpret, and act at the speed of the modern economy.

A natural transition: From architecture theory to architecture reality based on First Principles Thinking

As central banks look to migrate from fragmentation to intelligent architecture, they require platforms that embody these principles organically not through customization, but through native design. This is where purpose-built platforms like Intellect's eMACH.ai Core for Central Banks become relevant, not as software products, but as architecture enablers engineered specifically for central banking.

eMACH.ai Core for Central Banks supports the breadth and depth of central bank functions including banking services, government services, government payments, currency lifecycle management, reserve portfolio management, collateral and market operations/monetary policies management, govt. debt management, secondary market trading and settlement, enterprise general ledger, and CBDC settlement, within one architectural fabric designed for progressive transformation.

Intellect's eMACH.ai Core for Central Banks helps Central Banks to significantly improve both financial and operational efficiency. The platform delivers a host of tangible benefits including:

- Full reconciled real-time balance sheet with General Ledger to transaction navigation
- Over 250 digital services for banks, ministries, govt. agencies and currency chests through specially designed online portal
- Comprehensive support for wide range of monetary policy tools including advanced collateral management
- Treasury Single Account (TSA) with real-time balance consolidation
- Govt. payment gateway to process the govt. benefits, salaries and supplier payments at scale
- Robust currency in circulation management real-time tracking at the national level
- Zero-trust security architecture by design

And critically, its underlying architecture is event-driven, API first, cloud-agnostic (public/private clouds), composable, with in-built business impact AI framework. In essence, eMACH.ai Core for Central Banks represents the architectural pattern central banks are increasingly moving toward, one where intelligence is unified and built into the core.

A strategic imperative for the next decade

The next decade will be defined not only by policy choices, but by architectural choices. CXOs across central banks are now evaluating infrastructure through a new lens:

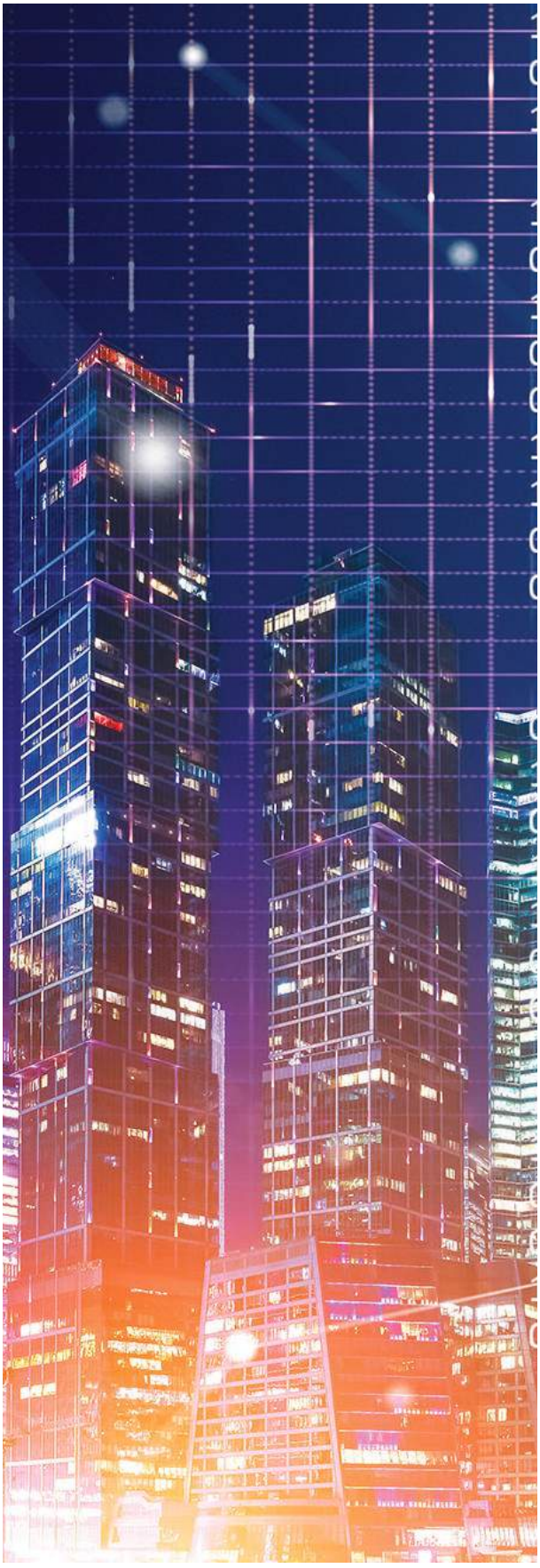
- Can risk be identified systemically, not in fragments?
- Can liquidity be monitored in real time, not at end-of-day?
- Can AI operate safely across the enterprise, not in isolation?
- Can digital currency coexist with traditional money without friction?
- Can supervisory visibility match the speed of the financial ecosystem?

These questions no longer belong to technology teams, they belong to leadership

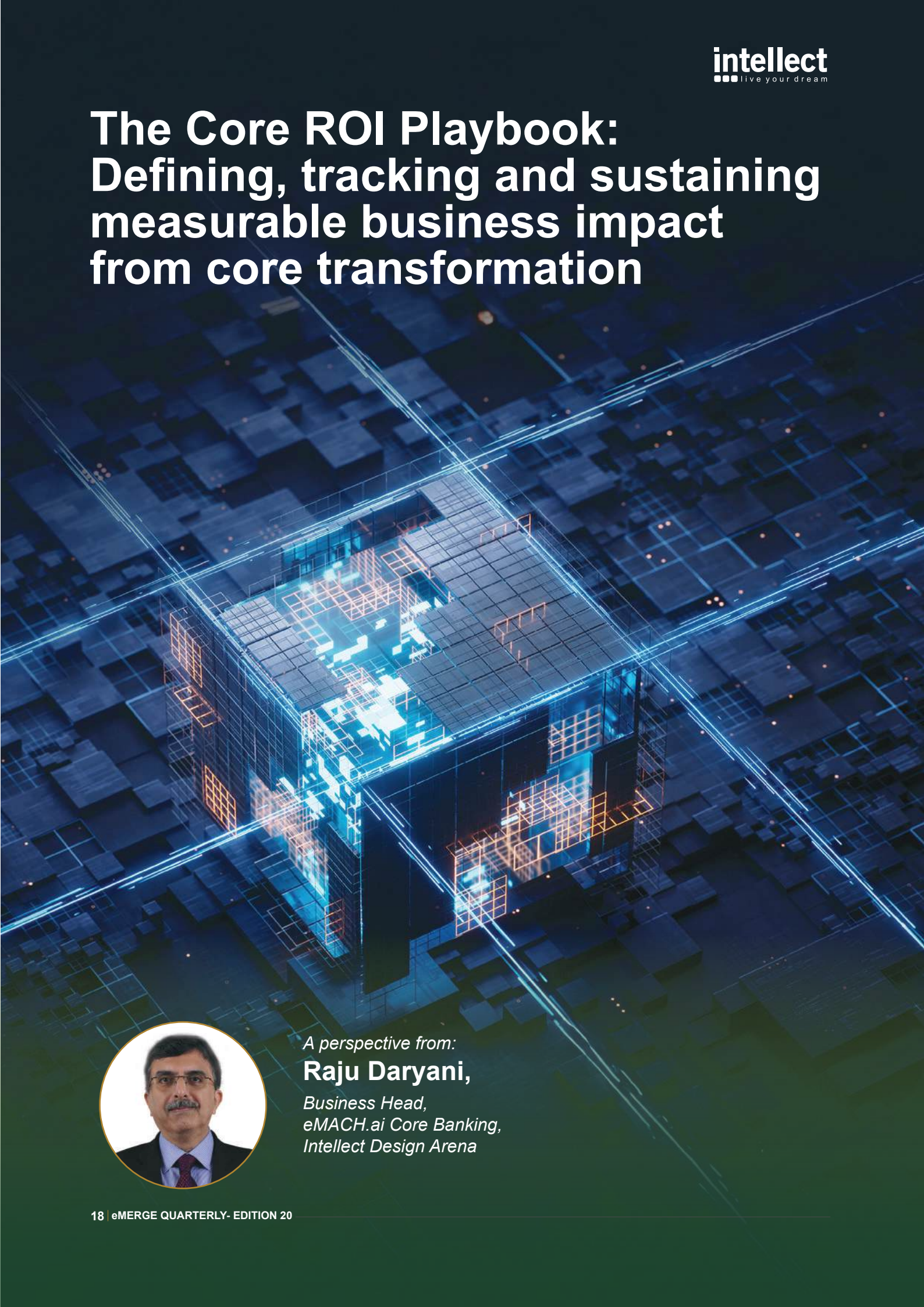
> The new mandate for central banks is simple: to transform the central bank infrastructure into a system that is nimble, flexible, real-time, and fully integrated with embedded AI.

Closing reflection

Fragmented architectures are incompatible with real-time finance. Intelligent cores are not optional upgrades, they are the institutional foundation for monetary stability, digital currency innovation, cyber-resilience, and supervisory excellence. Central banks that embrace this architectural shift will not only keep pace with the modern economy, they will shape it.



The Core ROI Playbook: Defining, tracking and sustaining measurable business impact from core transformation



A perspective from:

Raju Daryani,

Business Head,
eMACH.ai Core Banking,
Intellect Design Arena

Core banking transformation is one of the most pivotal decisions any financial institution can make. It determines not just the bank's technology backbone, but its future competitiveness, agility, and ability to innovate. Postponing modernization negatively impacts bank's growth and makes technology stack unsustainable, as the exponential accumulation of technical debt and rising operational risk makes every delay more financially taxing. Yet despite the scale of investment, many banks still struggle with the most fundamental question: **"How do we plan our transformation journey and measure real ROI from core transformation?"**

The challenge: The structural limits of legacy architectures

Most banks approach transformation carrying the weight of architectural debt. While traditional core platforms successfully served the stability-first era of branch banking, they were built for a different set of market dynamics. They have not "failed" in their original purpose; rather, they have reached the limit of their design.

The critical issue today is that these systems are structurally incapable of supporting the agility, real-time data, and ecosystem connectivity required to capture future value. By failing to modernize, institutions accept a compounding "innovation penalty," where the cost of maintaining the status quo actively erodes competitive advantage.

Legacy systems create barriers that cap potential growth such as:

- **Long product launch timelines:** Legacy stacks are often "tightly coupled," meaning a change in one area impacts the whole system. This makes deep customization expensive and risky, turning what should be weeks of product innovation into months of regression testing and deployment delays.

- **Rigid, monolithic architectures:** Older systems were designed for permanence, not adaptability. Adapting to new regulatory mandates or customer demands often requires costly, invasive vendor customizations rather than simple configuration changes.

- **Inflexible workflows:** Automation is severely constrained in legacy environments. This forces operations teams into manual, repetitive and error-prone tasks, preventing the bank from achieving true Straight-Through Processing (STP).

- **High operational costs:** Fragmented data models and a reliance on batch-based daily reconciliations inflate cost-to-income ratios. Without a real-time "single source of truth," banks spend excessive resources just keeping ledgers balanced.

- **Vendor dependency:** Deep reliance on legacy vendors for every minor change creates a bottleneck. Slow issue resolution and lack of control delay critical go-to-market initiatives and strategic pivots.

- Lack of being able to integrate with the ecosystem/market players for solution depth.

The transformation dilemma: Navigating choice and risk

Identifying the legacy problem is the first step; however, the second step- choosing the path forward presents its own set of hurdles. Many banks hesitate not because they lack the desire to change, but because the stakes of choosing the wrong partner or architecture are extraordinarily high.

CXOs must navigate five primary complexities during the selection process::

- **The "Big Bang" risk*:*** The risk of a total system overhaul often leads to "analysis paralysis," where banks stick with legacy systems rather than risking a multi-year project that might fail to deliver.
- **Architectural authenticity:** Differentiating between marketing claims and actual architectural readiness is difficult. Many "modern" systems are simply legacy code wrapped in a new interface.
- **Strategic alignment:** Business teams want growth; IT teams want stability; Finance teams want cost reduction. Without a shared framework, choosing a system that satisfies all three becomes nearly impossible.
- **Cost:** Modernization projects are often prone to budget overruns. The complexity lies in accurately forecasting the Total Cost of Ownership (TCO), including hidden integration costs and the long-term price of maintaining custom code.
- **Execution & project failure risk:** Beyond financial loss, a failed go-live or an abandoned project is a massive strategic setback. It results in years of "lost time," during which the bank's market position erodes while competitors move forward.

To resolve this, banks must stop viewing transformation as a technical purchase and start viewing it as a value-realization journey.

The strategy: progressive modernization

A critical trend in successful transformations is the shift toward Progressive Modernization. Instead of a high-risk replacement, this approach allows banks to modernize in manageable stages- by function or by business line. This strategy delivers four immediate advantages:

- **De-risking the transformation:** By avoiding a "big-bang" go-live, banks reduce operational risk.
- **Self-funding ROI:** Quick wins from the first phase can help fund subsequent stages.
- **Agile adoption:** Staff can adapt to new systems gradually, ensuring higher internal buy-in.
- Annual layering of new capabilities.

The solution: Building a core transformation playbook

The answer to this complexity lies in adopting a clear and disciplined **Core ROI Playbook.** This is a structured, outcome-driven approach designed to provide **Value Certainty.** By using a playbook, the conversation shifts from "Which features do we need?" to "What business outcomes are we guaranteeing?" This framework eases decision-making by attaching every architectural choice to a measurable business impact.

To ensure this impact is realized, the Playbook focuses on two critical strategic enablers:

- **Managing cost:** Transformation must not become a "black hole" for capital. The Playbook introduces financial discipline by focusing on budget predictability and Total Cost of Ownership (TCO). By leveraging cloud-native efficiencies and avoiding the "customization trap," banks can shift from unpredictable CAPEX to a transparent, manageable OPEX model, ensuring the cost of change stays aligned with the value delivered.
- **Organizational alignment & change management:** For a transformation to be successful, it must be culturally acceptable at every level of the organization. The Playbook prioritizes securing the right support by aligning the interests of IT, Business, and Finance. By demonstrating clear, department-specific wins and reducing "change fatigue" through phased rollouts, the bank ensures that the new system is not just deployed, but fully embraced by its people.

With these strategic foundations in place, the journey moves from planning to execution. To turn potential into profit, the Playbook follows a rigorous lifecycle: defining value at the start, tracking it through implementation, and sustaining it for the long term. The following chapters outline this three-step roadmap to value certainty.

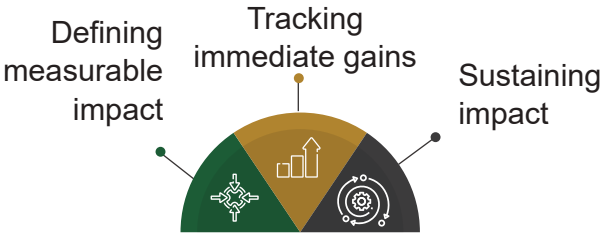


Image: Roadmap to value certainty in banking

Step 1: Defining measurable impact

A future-proof core banking platform must be designed to make ROI predictable from Day 1. We believe that transformation success is anchored on four pillars of banking excellence. These pillars act as the "North Star," ensuring that technology, business, and operations are aligned before the first line of code is deployed.

ROI pillar	Business impact	Architecture enablers
Business growth	Revenue & market share	Achieve quicker go-to-market with phased modernization and the ability to launch new products fast with parameterization.
Operational efficiency	Cost & throughput	Enable Real-time, cross-domain transaction processing and Rule-based straight-through processing (STP) with workflow orchestration.
Future-proof technology	Agility & innovation	Leverage Composable microservices and Open APIs for smooth integration, allowing continuous innovation via the low-code, no-code platform.
Risk, Regulatory & TCO	Capital & compliance	Lower Total Cost of Ownership through efficient implementation and ensure low-risk implementation that meets local regulatory requirements.

Table : Four pillars of banking excellence

By defining these impacts upfront, the Playbook removes the guesswork from transformation, providing a clear blueprint for unlocking quantifiable business value.

Step 2: Tracking immediate gains

Tracking ROI is where many banks falter. They measure transformation success through go-live events or technical metrics, while what truly matters is business value realization: speed, capacity, accuracy, and lowered cost.

Here are some examples of how you can track key metrics of your core banking transformation:

- **Real-time operational metrics**
  Legacy cores rely on end-of-day (EOD) processing and batch-based reconciliations, making measurement slow and inconsistent. In contrast, modern core banking platforms offer real-time transaction processing capabilities, High flexibility and configurability in ledger setup, event-driven workflows allow-

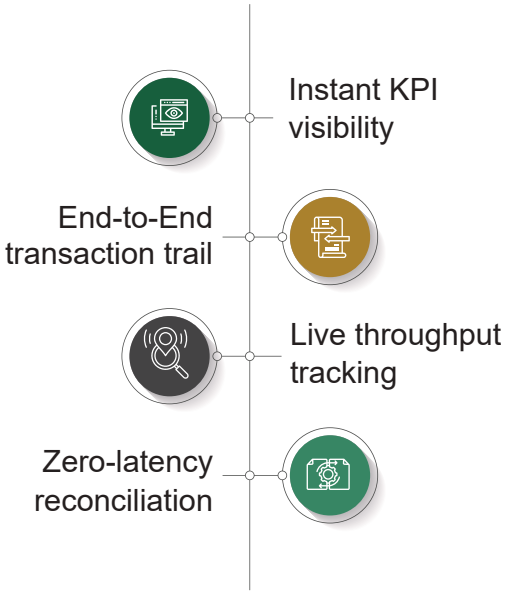


Image: Key benefits of highly flexible and configurable ledger setup in banking

- **Workforce productivity & process automation**
  Banks bleed efficiency through repetitive manual work. Modern core banking platforms remove these leakages by digitizing, automating, and orchestrating processes end-to-end. They eliminate huge overheads in terms of manual interventions through rule-based processing, unified operations, and real-time data flows. AI-Native Core Banking systems take this one step further by offering embedded digital experts that aim at improving operational efficiencies and process automation.

- **Data quality & risk reduction metrics**
  Data integrity, real time visibility and intelligent insights are what give the bank's management the tools to grow. A core banking transformation must enhance data integrity with rule-based engines that eliminate mismatches, duplicates, and breaks across ledgers and accounts.

- **Time-to-market acceleration**
  One of the biggest revenue drivers is product launch speed.

Key enablers of this acceleration include:

- **Parameter-driven product configuration with hyperpersonalization:**
  New offerings can be configured and launched rapidly using granular product parameters and rules engines, eliminating the need for custom code changes in the core system.

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  New offerings can be configured and launched rapidly using granular product parameters and rules engines, eliminating the need for custom code changes in the core system.
- **API-first ecosystem integration:**
  Seamless and rapid integration with FinTechs and third-party services is achieved through a rich library of Open APIs (often exceeding 1,000+ endpoints), drastically reducing integration timelines from months to weeks.
- **Business-led innovation:**
  Low-code/no-code extension platforms empower business and operational teams to run independent market experiments and deploy tailored workflows, without waiting for central IT intervention.

Step 3:

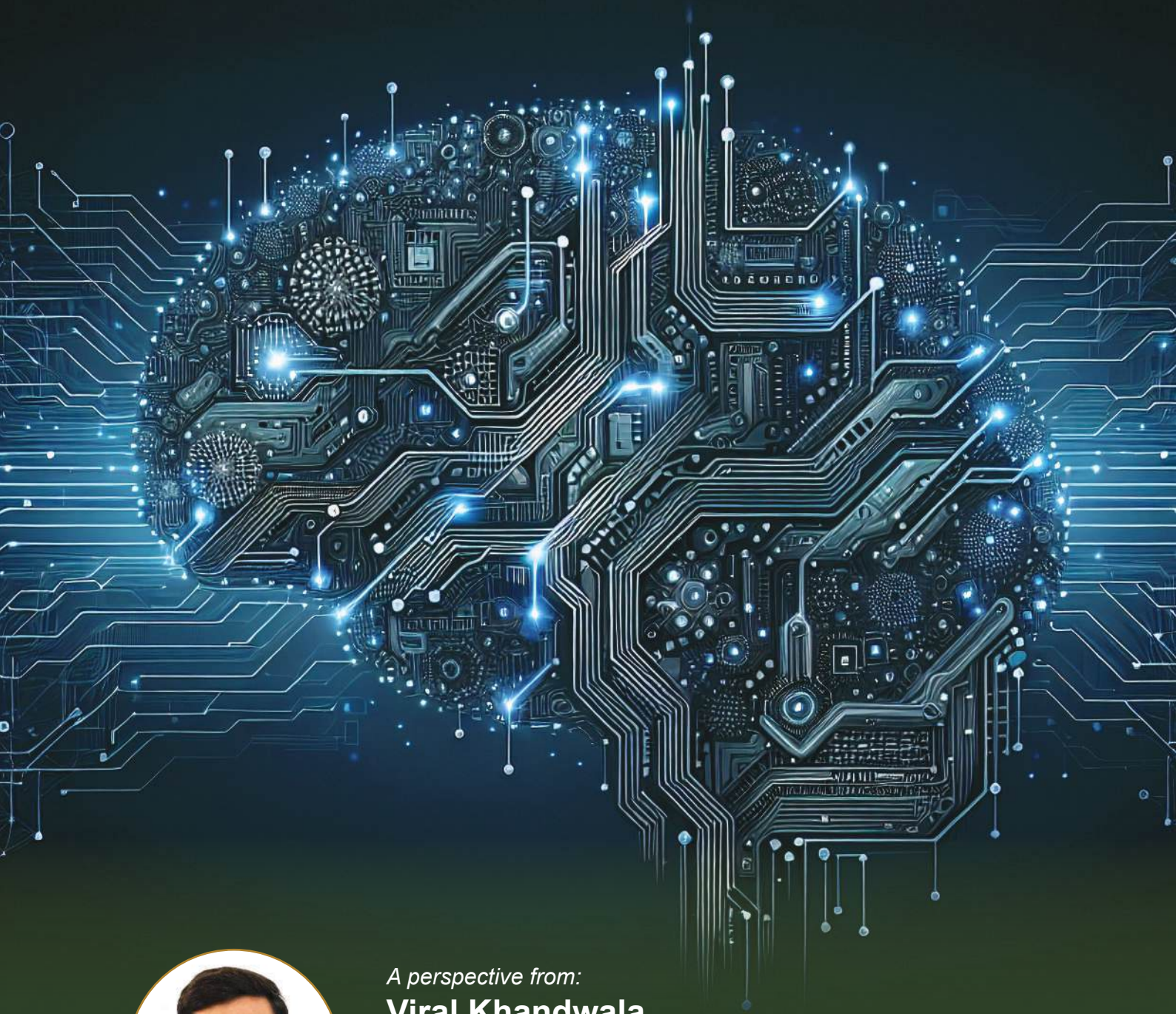
Before transformation (Legacy constraints)	ROI metric category	After transformation (Modern core impact)
Low processing capacity (e.g., approx 10 TPS).	Operational throughput	**200% increase in transaction processing** capacity observed
Reconciliation delays and GL mismatches; EOD operations approx 6+ hours.	Real-time visibility	**Zero reconciliation delays** due to real-time GL; EOD closure windows reduced to near real-time.
Extensive manual processes and exceptions handling.	Workforce productivity	**Thousands of person-hours saved every month through end-to-end automation** (e.g., over 5,200 person-hours saved monthly).
Continuous system timeouts; high-risk data inconsistencies (e.g., duplicate entries).	Data quality & risk	**Elimination of duplicate entries and system timeouts;** significantly reduced high-risk data inconsistencies.

Table : Key results achieved by banks with Intellect's eMACH.ai Core banking transformation

These results- specifically the 200% processing uplift and the recovery of over 5,000 monthly person-hours serve as clear proof that measurable ROI is not aspirational; it is an achievable and repeatable outcome of a disciplined, architecturally-sound strategy.

For banks seeking certainty in an uncertain market, the combination of this ROI Playbook and the composable capabilities of our eMACH.ai Core Banking platform provides the definitive blueprint for unlocking long-term, quantifiable business impact.

AI-first credit circuit: Reshaping the future of digital lending for the next decade



A perspective from:

Viral Khandwala,

EVP & Engineering Head – eMACH.ai Lending, Intellect Design Arena Ltd

If you walk into any bank's lending team today, you will find a mix of confidence and concern. Confidence because lending continues to be the engine of growth. Concern because the traditional ways are falling short as core expectations shift toward agility in disbursing loans, managing risk to control delinquency, and end-to-end operational efficiency.

Structural bottlenecks of modern credit

Data remains scattered across disconnected systems, forcing teams into constant manual reconciliation. This fragmentation creates a direct hit to operational efficiency and results in an inconsistent customer experience, eventually leading to a significant loss of business as applicants drop off. When the process relies on manual checks, long document reviews, and multiple sign-off layers, the institution faces frequent TAT bursts and a potential loss of opportunities as agile competitors move faster.

Service workflows often rely on redundant KYC and manual validation, increasing frustration for customers and lowers operational efficiency, as staff spend time on repetitive queries instead of high-value tasks.

Further, the current approach to loan operations and collections is fundamentally reactive, often identifying borrower stress only after a payment is missed. This delay drives high delinquency and weakens collection efficiency. Without the ability to spot early warning signs, the process focuses on damage control rather than proactive prevention, hurting both the customer experience and overall operational efficiency.

Emergence of AI in digital lending

According to the "The state of AI in 2025" survey report by McKinsey1 , 88% of respondents regularly use AI in at least one business function, compared with 78% a year ago, indicating an increase in adoption. However, most organizations - approximately two-thirds are still in the early stages and have not yet scaled AI across their operations.

The shift toward AI and in digital lending is no longer just experimental; it is delivering measurable results. The consensus on Generative AI is even more striking—84% of senior credit risk leaders believe GenAI will drastically accelerate model development and deployment.

Furthermore, 70% see it as the key to streamlining regulatory documentation, effectively shortening validation cycles that have traditionally been a major bottleneck.

Four foundational pillars of AI-first approach to lending

A successful enterprise AI implementation is built on four foundational stacks.

Image: Four foundational pillars of AI-first approach to lending

The Enterprise Knowledge Garden ensures all enterprise-relevant data is curated, contextualized, and made accessible to AI agents for informed decision-making.

Enterprise Digital Experts enable organizations to create and orchestrate intelligent AI agents that assist, augment, and automate operations across functions.

The LLM Optimization Hub provides the flexibility to swap or integrate best-fit Large Language Models at any time, reducing vendor lock-in while optimizing accuracy, performance, and cost.

Finally, **Enterprise Governance** establishes robust controls to govern and monitor AI agents and data, ensuring safety, auditability, and accuracy at scale. Together, these four stacks create a scalable, secure, and future-ready AI foundation for the enterprise.

Intellect's approach to AI-based design for lending

AI is embedded in the operational DNA of digital lending rather than an add-on, forming the foundation of PF Credit. The platform is designed to deliver precision, explainability, and speed—going well beyond the capabilities of generic chat-based AI.

AI capability	Impact on lending
Document processing	Document classification, extracting information from documents, validating information extracted and eliminating manual data entry.
Triangulation	Triangulation of data across multiple documents & sources to check for anomalies.
Statement analysis	Automated analysis for banking, income, expense and cash flow assessment.
Knowledge exploitation	Contextual Intelligence powered by AI agents to drive First Time Right (FTR) / First Time Not Right (FTNR), dynamic rule evaluations for policies & guidelines, scoring, in-principle approvals, validations, risk assessments, collection portfolio segmentation, etc leveraging the knowledge encapsulated in the Enterprise Knowledge Garden (EKG).
Artifact generation & decision support	AI-generated CAM (Credit Analysis Memos), Term sheets, Collection case insights, etc, providing real-time insights and recommendations.
Natural language (NL) assistants	Assistants for various role players to provide information, insights and servicing

Table: AI capabilities of PF Credit across the lending lifecycle

The platform enables continuous, risk-mitigated AI-native evolution using a Champion-Challenger model by allowing proven, structured pre-configured business rules (the “Champion”) to operate alongside knowledge-document–driven intelligence (the “Challenger”). Structured rules continue to provide stability and regulatory confidence, while AI-driven intelligence is applied to use cases such as FTR/FTNR determination, deviation analysis, and risk assessment. By running both approaches in parallel, banks can safely test, validate, and adopt more advanced AI-driven decisioning, ensuring controlled outcomes and a measured transition toward fully AI-native origination.

The platform follows a DIY (Do It Yourself) approach and enables banks for self-service, continuous innovation and improvements. For a bank, LLM selection and configuration, agent instructions, and institutional knowledge are all independently self-managed, allowing full control, flexibility, and faster iteration.

Digital experts in action

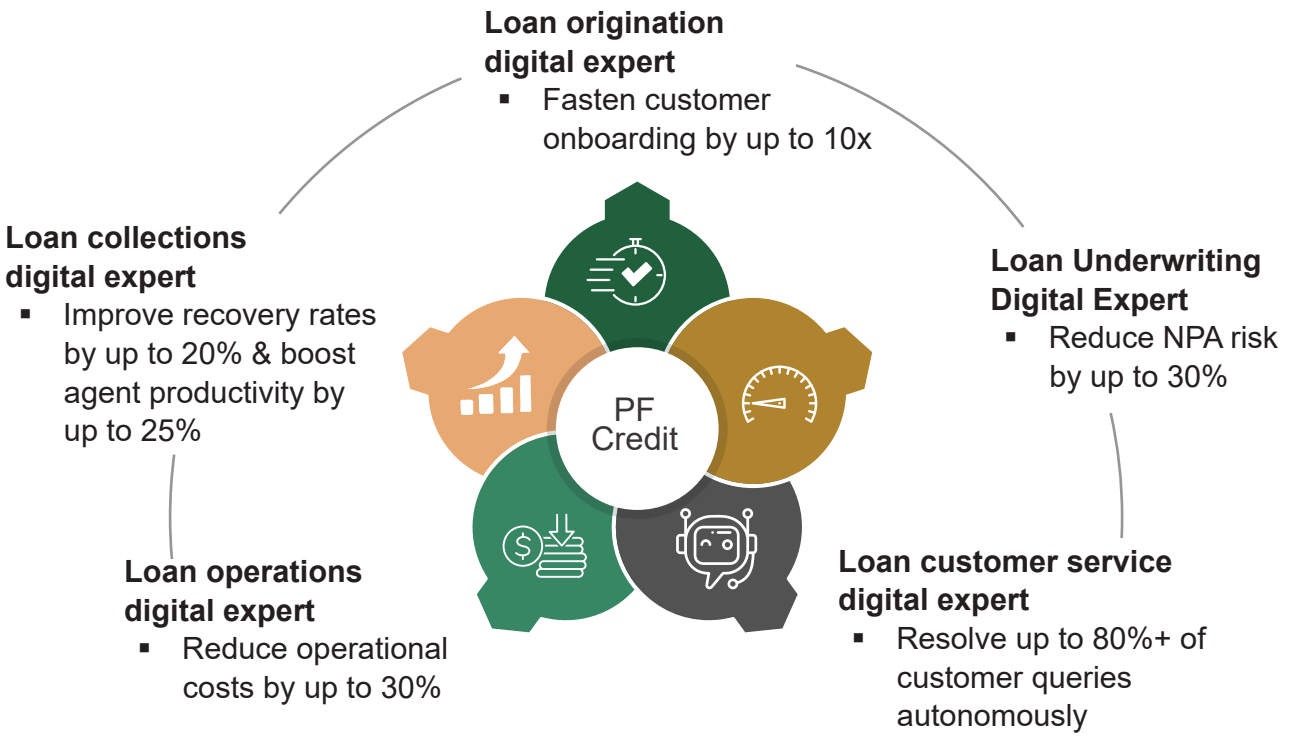


Image: Digital experts offered by Intellect's PF credit for banks

- In loan irigination, the agents take over the heavy lifting of unstructured application sourcing and document extraction. This shift can lead up to a 60% reduction in manual data entry and works towards high accuracy of "First Time Right" (FTR). By acting as a dedicated assistant to both Relationship Managers and customers, it can eliminate the friction of the initial application and create a significantly smoother onboarding experience.

- For loan underwriting, the focus shifts to high accuracy of underwriter decisions, enhancing credit quality. The agent assists underwriters by performing complex case risk analysis and generates CAM summaries consolidating data from documents, and third party insights. This level of support reduces the constant back-and-forth typically required to finalize a file, resulting in faster decisions without compromising the accuracy or integrity of the risk assessment.

- In loan customer service, AI agents transform the borrower experience by acting as a 24/7 engagement channel. By serving as a dedicated assistant for loan enquiries, these experts can achieve up to 70% reduction in query resolution turnaround time (TAT). This efficiency directly reduces call center traffic and branch footfall, allowing the institution to provide instant, high-quality service at a much lower operational cost.

- Within loan operations, the role of the Digital Expert is one of proactive control. By functioning as a continuous portfolio scanner, these agents identify early warning signals and trigger events that human teams might miss. This

proactive approach allows for a much tighter grip on delinquency risks and reduces overall operations costs, ensuring the portfolio remains healthy and well-monitored throughout its lifecycle.

- Finally, in loan collections, digital experts empower agent productivity through deep case insights and intelligent portfolio segmentation. These agents act as multilingual, context-aware communicators that can engage with customers more effectively, leading to improved collection efficiency and reduced provisions. By providing the right context at the right time, they ensure the collection process is both results-oriented and sensitive to the customer experience.

Closing note

The shift toward an AI-first credit circuit is no longer a matter of "if," but "how fast." By moving beyond simple automation and empowering teams with specialized Digital Experts, financial institutions can finally break the cycle of manual bottlenecks and reactive risk management. This architecture, orchestrated by a hierarchy of intelligent agents, enables lenders to scale with a level of precision previously impossible.

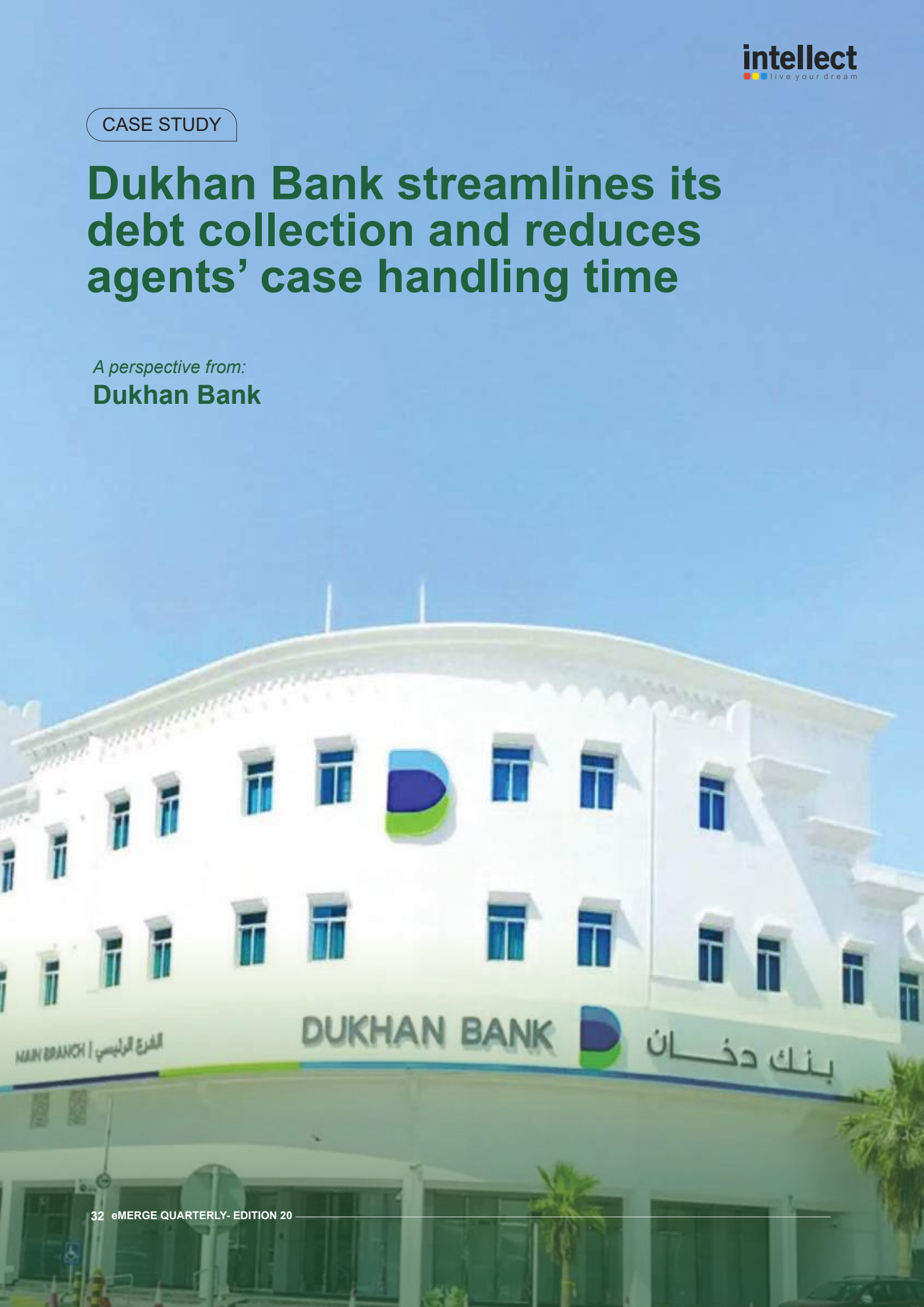
As we look toward the next decade of digital lending, the competitive edge will belong to those who stop treating AI as a background tool and start deploying it as a strategic partner across every stage of the borrower journey.

CASE STUDY

Dukhan Bank streamlines its debt collection and reduces agents' case handling time

A perspective from:

Dukhan Bank

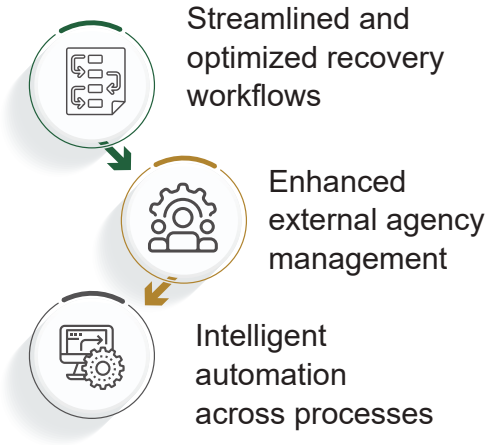


Headquartered in Lusail Marina, Qatar, Dukhan Bank operates eight branches across the country to provide a broad range of Shariah-compliant financial services, including retail and private banking, real estate and structured finance, corporate and government banking, and wealth and asset management, catering to diverse client needs.

Solving critical challenges

As Dukhan Bank continued to grow, its leadership identified operational challenges that presented opportunities for enhancement. These included the need for more agile reporting, greater access to on-demand MIS insights, increased automation, and a more unified customer view to support informed decision-making. Strengthening oversight of internal and external collections teams also became a priority as the bank sought a more integrated, data-driven approach.

To address these evolving needs, Dukhan Bank partnered with Intellect Design Arena and adopted the eMACH.ai Lending platform. This strategic collaboration enabled the bank to reimagine its collections ecosystem by introducing:



With built-in dashboards and MIS capabilities, the bank successfully transformed previously dispersed activities into a cohesive, well-coordinated system—supporting stronger operational performance and timely, insight-driven decisions.

Strengthened monitoring capabilities

Using an API-first approach, the eMACH.ai Lending solution ensures effortless integration and interoperability with third-party platforms, removing long-standing barriers to connectivity.

To strengthen monitoring capabilities, the platform added tools that go beyond standard Promise to Pay (PTP) tracking.

Features such as short settlement plans and monthly instalment plans, complete with built-in approval mechanisms, gives Dukhan Bank more flexibility in managing customer commitments.

Improved user-interface and efficient reporting

The technology upgrade wasn't just behind the scenes. A refreshed, intuitive user interface was designed to deliver a modern, seamless experience, ensuring efficiency and enhancing customer interactions.

Reporting also received a significant boost. With the ability to generate, configure, and schedule reports effortlessly, stakeholders now have timely access to insights that were previously difficult to obtain.

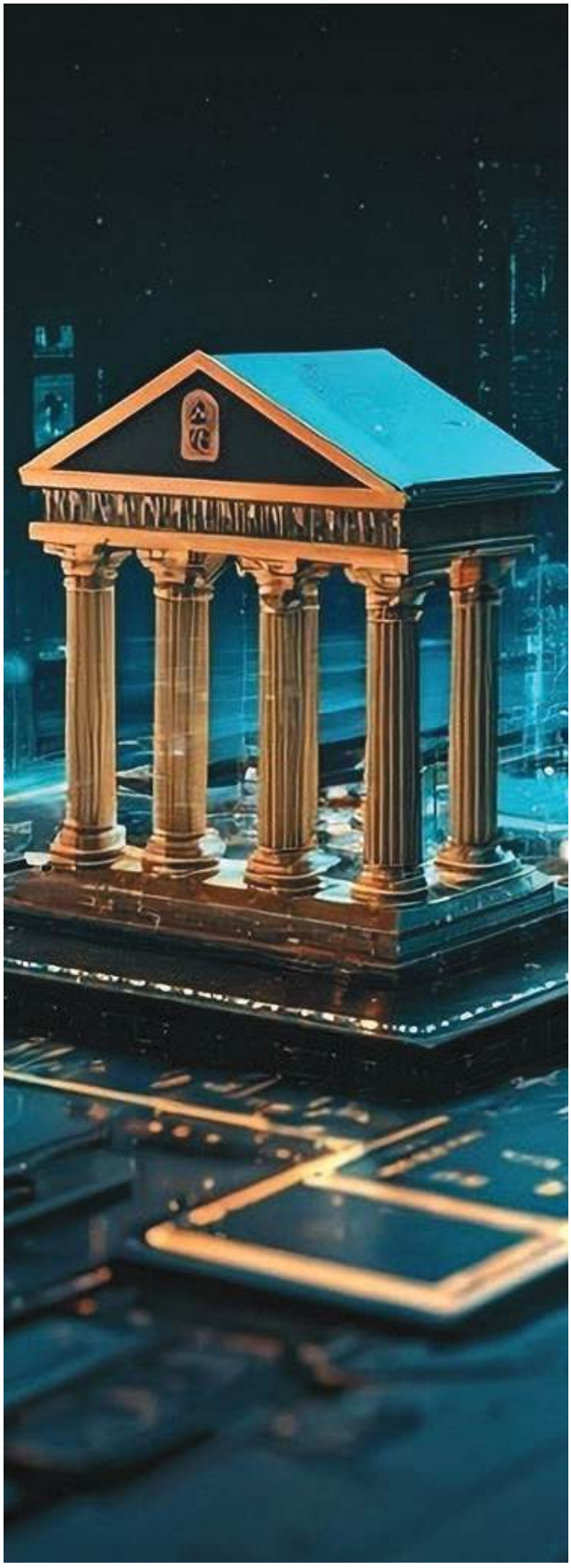
The business impact

Delivered in seven months, with 79 user stories, the platform achieved an EOD duration of just 20 minutes and a 20% reduction in agent handling time. Dukhan Bank reported significantly streamlined recovery workflows, external agency management, improved efficiency through automation, agent productivity and visibility, with stakeholder-ready reporting and simplified access across systems.

An award winning bank

Unlike peers that offer static, siloed debt management solutions, Intellect stands out for delivering a truly composable, AI-driven, cloud-native platform with unmatched scalability, customisability, and business impact.

Ensuring faster go-live, lower TCO, and sustained recovery performance, Intellect has made sure it is a future-ready choice for modern financial institutions, helping Dukhan Bank earn the award for ‘Best Loan Systems Provider for Retail Banking’ at the Global BankTech Awards 2025.



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From fragmented systems to intelligent cores:
The new architecture mandate for central banks and financial institutions

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AI-first credit circuit: Reshaping the future of digital lending for the next decade

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About Intellect Design Arena Limited

Intellect Design Arena Ltd is a global leader in enterprise-grade financial technology, delivering composable and intelligent solutions to forward-looking financial institutions across 61 countries. With three decades of domain expertise, our product suite spans Consumer Banking, Wholesale Banking, Central Banking, Wealth, Capital Markets, Treasury, Insurance and Digital Technology for Commerce. Applying First Principles Thinking and Design Thinking, we have elementalised the financial services landscape into a finite set of events, microservices, and APIs, enabling faster, modular transformation with measurable outcomes.

At the heart of this are eMACH.ai, the world's most comprehensive, composable and intelligent open finance platform; Purple Fabric, the world's first Open Business Impact AI platform; and iTurmeric, our composable platform for seamless integration and configuration. We are a pioneer in applying Design Thinking and our 8012 FinTech Design Center, the world's first Design Center dedicated to Design Thinking Principles, underscores our commitment to continuous and impactful innovation, addressing the ever-growing need for digital transformation. We proudly serve over 500+ customers worldwide, supported by a diverse workforce of solution architects, and domain and technology experts in major global financial hubs. For more information, visit https://www.intellectdesign.com

We invite you to share your perspectives and success stories with our global community. Whether through a contribution to our 'Client Speak' section, a detailed case study, or a strategic article, we welcome your insights as we shape the future of banking together. Please reach out to us at **marketing.gcb@intellectdesign.com** by 01 March 2026 to explore a collaboration.

Intellect - A thought leader in banking technology

Whitepapers

Explore in-depth insights and strategic frameworks designed to navigate the evolving landscape of banking. From our whitepapers provide the roadmap for financial institutions to architect their future with positive business impact.

Know more ▶

Podcast

Intellect Consumer Banking launched the 'Insights from Inside' podcast series to unravel the complexities of banking, providing banks with a technological and strategic roadmap to transformations. Each episode of the series features industry leaders sharing their expertise on challenges, innovations, and the future of banking. The series attracted 13 Lakh listeners from 2200 banks across the globe.

Know more ▶

Case studies

Discover how Intellect has helped award-winning financial institutions globally navigate complex landscapes and drive measurable business impact.

Know more ▶

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Oxford is a three-day residential programme that brings together decision-makers, strategists, and practitioners for a highly curated learning journey that explores the forces reshaping modern banking. With dedicated tracks for central banking and retail banking, the agenda addresses mission-critical priorities across both domains— ranging from regulatory transformation, digital currencies, and risk governance to customer-centric innovation, embedded finance, and AI-powered operations. Join us this **2–4 November** to secure your place among the leaders architecting the next era of financial services.

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