

CELENT

Moven<sup>®</sup>  
ENTERPRISE

# DELIVERING A PERSONALIZED DIGITAL BANKING EXPERIENCE

HOW BANKS CAN LEVERAGE ARTIFICIAL INTELLIGENCE +  
MACHINE LEARNING TO GAIN A COMPETITIVE ADVANTAGE

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This report was created by Celent for the  
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## PREFACE



An open letter to banks and financial institutions around the globe,

To survive the next few years, banks and financial institutions must act **now** to deliver personalized smart-banking experiences, grounded on first principles, augmented with artificial intelligence (AI) and machine learning (ML). Steps you should take:

- Embrace a First Principles mindset
- Accept that a 'digital strategy' is not enough
- Look beyond PFM to PFE/PFA (advice) – Augmented with AI/ML
- Leverage APIs and SDK for a turnkey, speed-to-market solution

The following Celent whitepaper, provides leading global insights into the fast-moving trends that are impacting your customers today and why it is critical to take action to partner with a technology firm like Moven to ensure your company is poised to thrive in this competitive environment. Additionally, the paper features **two impactful case studies** of financial institutions that have implemented our technology.

Banks and FIs that do not embrace a personalized digital strategy in 2019, **will not survive.**

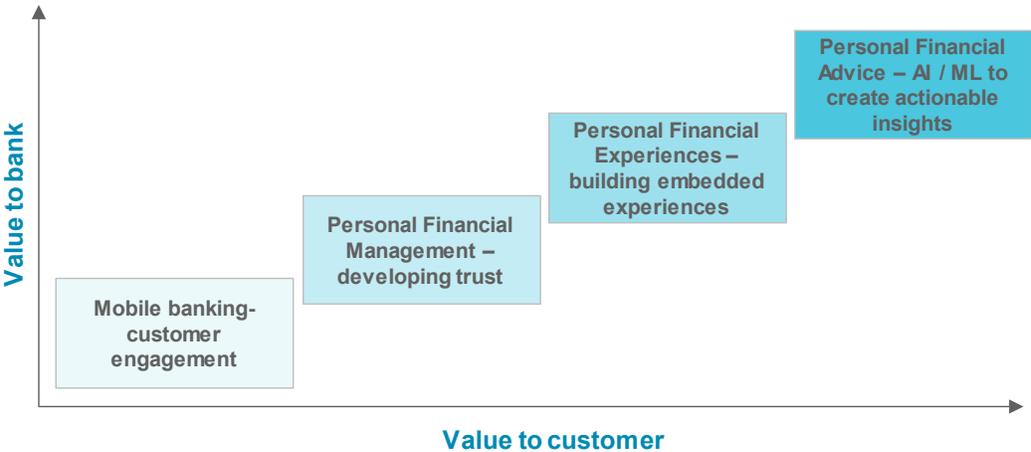


*Brett King, founder + executive chairman  
Movencorp, Inc.*

# THE NEW DIGITAL IMPERATIVE: MOVING FROM DEVELOPMENT TO DELIGHTING CUSTOMERS WITH PERSONALIZATION & FINANCIAL INSIGHTS

The time is now for institutions of all sizes to start thinking about the technologies needed to enhance digital transformation initiatives. Customer expectations continue to define the nature of the digital banking experience. Large tech and other industries are defining personalization through digitization, and financial institutions need to digitize now or they will be at a sustained competitive disadvantage.

Figure 1: Personalization Is Moving Beyond Simple Financial Insight



Source: Moven, Celent

The industry is moving away from a purely transactional view of digital banking capabilities and toward an environment where value-added financial management capabilities are embedded throughout the customer journey and engagement. Expectations are that a product be personalized, automated, immediate, and contextual.

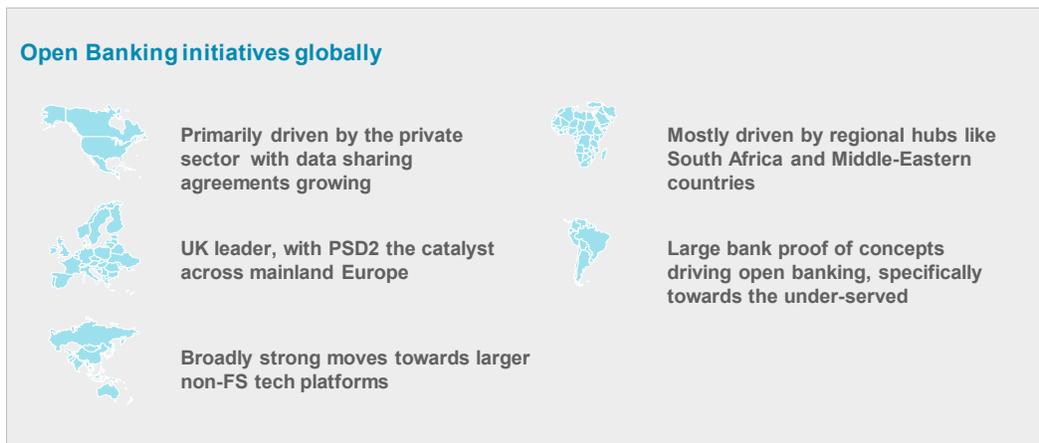
## Consumer Expectations of Digital Banking

			
<b>Personalized</b>	<b>Immediate</b>	<b>Automated</b>	<b>Contextual</b>

Going forward, the evolution of machine learning (ML) and artificial intelligence (AI) will significantly enhance an institution’s ability to meet consumer expectations. AI and ML enable smarter and more relevant experiences, creating greater value through deepening customer engagement. AI/ML move beyond simple rule-based insights, ingesting a wide variety of data for new insights. Most providers are at various stages of development.

However, institutions that are in the vanguard are integrating AI/ML with their digital platform development.

Simultaneous with advances in digital banking, markets across the globe are moving into an era of open banking, with financial institutions becoming more integrated, better connected, and entirely data-driven. Open banking looks to create an environment which nurtures innovation and creates an ecosystem for value-added digital banking.



Emerging digital technologies and open banking will have implications on how institutions design and build financial management applications. Solutions will have to be built flexibly, with functionality that's easily deployable depending on the intended journey rather than in the traditional monolithic form. This not only includes components within a financial management application, but also the data which powers it.

The world of open banking will require a new level of agility and openness. Institutions will need to adapt to the new era of interconnected banking using technologies like APIs and SDKs.

## DRIVING PERSONALIZED DIGITAL CUSTOMER ENGAGEMENT VIA APIs/SDKs

Never has it been more important for institutions to leverage technologies like AI/ML coupled with APIs and SDKs to meet emerging demand for a value-added digital banking and financial management experience. Celent estimates that 65% of existing bank technology spending goes to "maintenance" — simply keeping the lights on. Only 35% is spent on new initiatives. With limited budgets, institutions struggle to keep up with customer expectations set by technology companies. The result is too much time and too many resources spent on development.

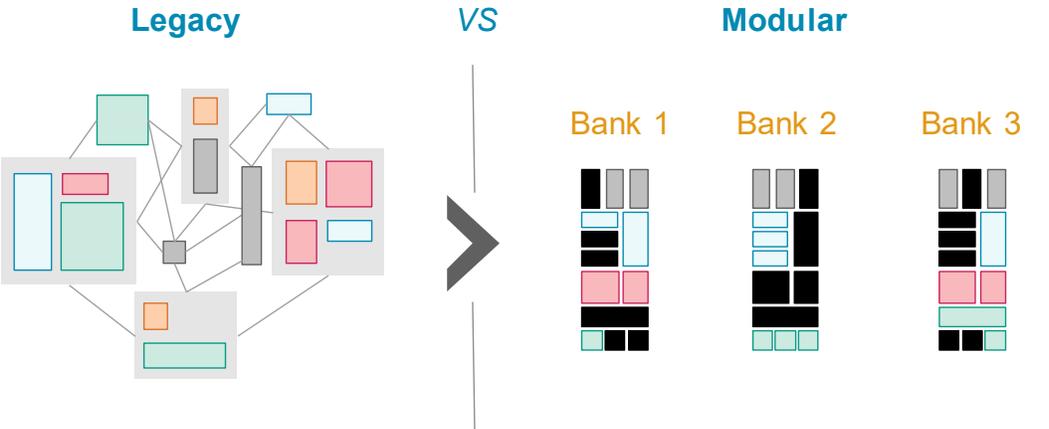
Building capabilities from scratch is a monumental task for developers. The development lifecycle of solutions which ensure regulatory compliance, integrate properly with other systems, and function consistently can be months or years to launch at often untenable

costs. Institutions need to get the most bang for their buck on investments into personalized financial management. Customers are expecting a “wow” factor, but with limited resources this can be a challenge.

By utilizing APIs/SDKs, institutions, no matter the size or personnel constraints, can more easily create applications and customizations built to specific internal needs. They can build capabilities which truly delight the consumer. APIs and SDKs technologies contain pieces of code, user interfaces, libraries, documentation, proper security, and sandbox facilities to help deliver customized and integrated experiences directly into an existing application. These technologies can then allow developers to quickly create impactful use cases around AI. For example, leveraging machine learning to derive insights from past transactions to provide personalized advice.

Vendor partners are not only developing deep expertise in AI solutions, but are building out more comprehensive APIs and SDKs to give more independence to their digital banking customers. This makes platforms more modular and flexible than ever before, allowing for greater degrees of customization. **Figure 2** illustrates the departure from traditional software deployments. Legacy monolithic systems were deployed as a single package with hard dependencies across components. With modular designs, components are broken up and able to be mixed and matched as needed. Banks can use APIs to plug into widgets while leveraging an SDK to easily build with them. Additional APIs can be used to layer in intelligence on top of the implemented modules, all with limited bootstrapping by the institution.

Figure 2: New Modularity Allows for Mixing and Matching of Capabilities



Source: Celent analysis

Ultimately, APIS and SDKs democratize access to development capabilities to deliver more tailored applications of financial management and value-added insights. It empowers the institution to innovate flexibly and quickly. Celent identifies four areas where APIs and SDKs can enhance digital financial management.

### *Aggregation*

Financial management relies on aggregation in many ways. First, APIs allow for better connectivity of data and applications to maximize the value to the consumer. Linked accounts or third party solutions rely on being able to interface with consumer data through API connectivity. SDKs and APIs also let institutions create, combine, and orchestrate new products or services from existing software capabilities, aggregating them into customized configurations.

### *Personalization*

The heart of personalizing financial management is being able to offer value-adding, actionable advice when and where the customer needs it. Implementation technologies like SDKs and APIs give the institution access to the same development tools used by leading vendor providers, allowing them to extend platforms in unique ways.

### *Integration*

SDKs and APIs are used extensively by vendors to make software integration less complex for customers. This not only supports easier integration with internal systems but also enables the establishment of broader ecosystems. The next generation of personal financial experiences will rely on a range of strategic product and functional partnerships. APIs will play a critical role in facilitating connectivity and interoperability within a broader solution ecosystem.

### *Flexibility/Agility*

With limited resources and bandwidth, institutions need to leverage new capabilities to avoid lengthy development timelines and move with the market. SDKs and APIs allow developers to get a customized solution up and running in days or weeks, as opposed to months or years. It enables institutions to tackle individual problems quickly and more effectively than before.

 <p><b>MySpend by TD Bank</b></p>	 <p><b>Yandex.Money</b></p>
<p><b>Problem</b></p>	
<p>Expectations continue to increase while TD Bank (Canada) is seeing some of its customer base struggle with financial literacy.</p> <p>The bank recognized an opportunity to promote the use of fintech and ecosystem partners to deliver new and exciting financial advice.</p>	<p>Yandex.Money, a Russian e-wallet provider with 46 million users, wanted to offer more value-adding insights.</p> <p>They chose Moven Enterprise to personalize its customer experience by using their APIs and SDKs.</p>
<p><b>Solution</b></p>	
<p>TD Bank, through a partnership with Moven, launched MySpend, a companion app to its traditional mobile banking offering.</p> <p>TD Bank worked directly with Moven to create an experience that would differentiate them with their customers.</p> <p>Moven’s widgets, APIs, and SDKs supported quick integration and improved speed to market.</p> <p>AI and ML capabilities took transactional data and produced valuable insights.</p>	<p>Through the Moven integration, the Yandex.Money app can now provide personalized and contextual advice to its customers.</p> <p>IT analyzes and tracks customer spending through AI and machine learning, tailoring interactions to the specific user.</p> <p>The technology is proven to promote positive spending and savings behaviors by providing the right advice and the right place and time.</p>
<p><b>Results</b></p>	
<p>TD MySpend now has <b>more than 1.5 million users</b> and has received positive feedback in the app store.</p> <p><b>A 4–8% drop in discretionary spending and an increase in savings</b> by TD MySpend customers w/Moven’s smart-banking technology.</p> <p>Additionally, TD Bank (Canada) <b>attrition rates have dropped below 1%</b>.</p>	<p>The e-wallet provider has been able to <b>dramatically increase customer engagement and strengthen the experience</b> through this innovative technology.</p>

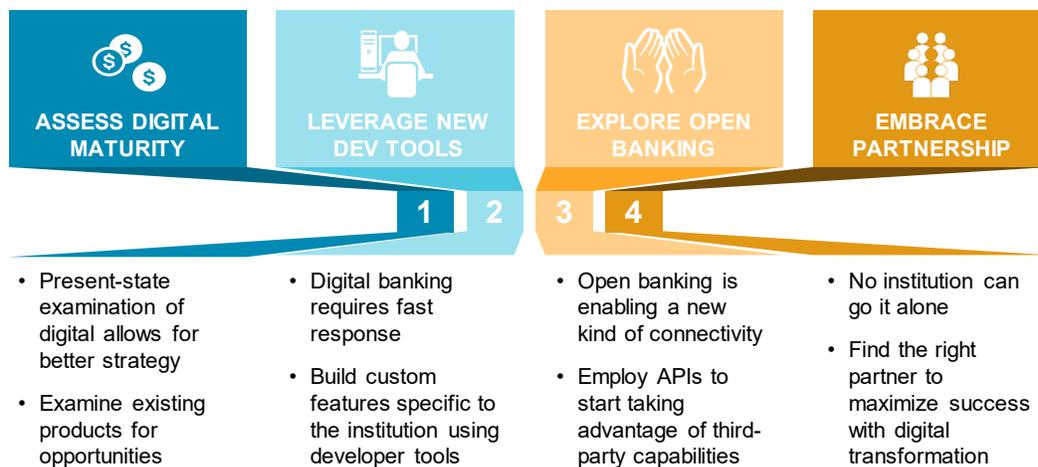
## THE PATH FORWARD: DRIVE ENHANCED PERSONALIZATION — BEYOND PERSONALIZED FINANCIAL EXPERIENCES (PFE) TO ADVICE: PFA

To thrive in an increasingly digital, fast-moving, and open world, institutions must take advantage of key enabling technologies. The market is moving fast, and the stakes are undeniable.

AI is revolutionizing the way in which institutions serve their customer base, while time- and resource-saving development tools empower the institution to build to specific internal needs. The end goal is personalized, automated, contextual, and immediate financial management through digital banking. AI combined with APIs and SDKs is the way to get there.

Leveraging these capabilities, institutions can start to look and act like real innovators, building solutions and achieving a level of agility not possible through traditional legacy technology. **Figure 3** outlines four imperatives banks need to think about today.

Figure 3: Four Imperatives for the Digital Bank



Source: Celent

To stay competitive, FIs should leverage the most innovative AI/ML technology to create personalized financial experiences and advice to better acquire, retain, and grow their customers throughout the customer lifecycle.

Celent recommends that financial institutions of all sizes begin to take advantage of technology like AI, APIs, and SDKs, driving digital transformation and enabling a new era of personalized financial experiences. The market continues to evolve, and the time is now — **institutions which do not react risk being left behind.**

## APPENDIX/ GLOSSARY

### Artificial Intelligence (AI)

Technology that makes inferences and decisions that used to require direct human involvement.

### Machine Learning (ML)

Machine learning occurs when computers change their parameters/algorithms on exposure to new data without humans having to reprogram them.

### Application Programming Interface (API)

An interface which allows two systems to communicate. The interface provides a front door to access either services or data of the underlying software.

### Software Development Kit (SDK)

A set of tools which allows a developer to more easily build or integrate features into software.

### Personalized Financial Management (PFM)

Modular financial management capabilities typically separated from the rest of the digital platform offering.

### Personalized Financial Experiences (PFE)

A coordinated set of customer interactions that pushes and provides customers relevant, timely information and advice to enable them to live more informed and proactive financial lives.

### Personalized Financial Advice (PFA)

AI and data-driven financial advice leveraging AI building blocks such as ML to create value-adding and actionable insights into consumer finances.

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