

WHITE PAPER

PFM

The Essence of Digital Banking



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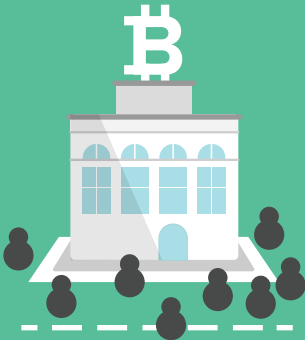
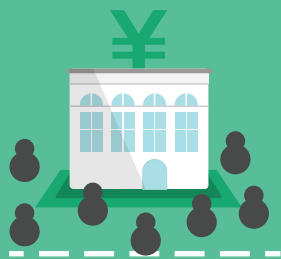
The Essence of Digital Banking

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SUMMARY

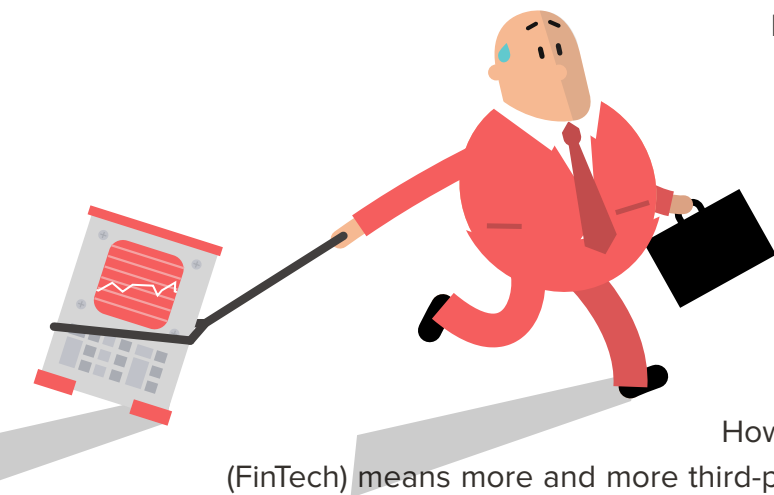
Personal Financial Management (PFM) has become indispensable to and practically synonymous with digital money management. Today's retail banking customers expect the convenience, flexibility and personalized insights only PFM can offer in order to manage their money their way, as a key part of the full digital banking experience.

This white paper details what a truly comprehensive PFM offering should contain, and explains exactly how banks can deliver the experience customers are seeking in order to reap the many benefits PFM has to offer, leading to higher retention, ROI and business growth.

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I. The FinTech Race is on



Interacting with money is a fundamental part of everyday existence. As daily life moves online, those interactions are happening more and more often in the Internet banking space. It follows that some form of digital money management is inevitable for each and every consumer.

However, the rise of financial technology (FinTech) means more and more third-party personal finance products, from Mint to Digit, are giving consumers the freedom and flexibility to manage their money outside their bank. What's more, it's not only pure FinTech startups getting in on the PFM action - giant tech players like Google, Apple, Amazon and Facebook are starting to enter the digital money management space with their own products and services.

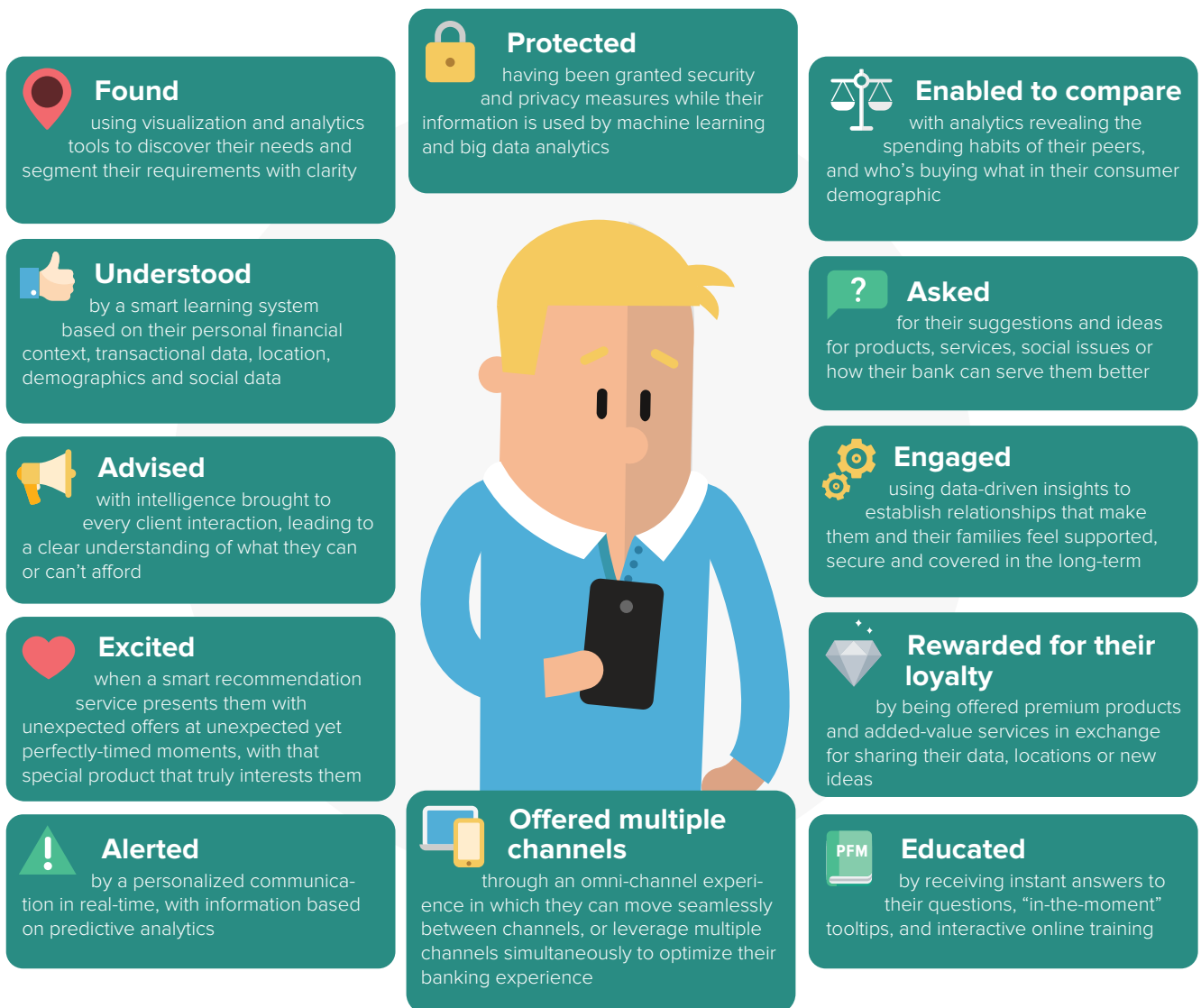
According to a recent Novantas survey of 3000 consumers in the US, 32% of respondents used PFM services or software to manage their finances, but only 28% of those use their bank or credit union's site for personal financial management. It would be remiss to assume that these customers don't actually want to manage their money with their bank, however. In fact, 63% of them trust their bank much more, according to a recent Gartner survey, and would rather use online money management tools on their bank's secure website than third party apps. It's just that consumers are using best tools they can get from wherever they are actually offered.

The result of all this? Every bank is now asking: **How can we ensure that consumers continue to take care of their financial needs with us?**

The aim of this white paper is to show how Personal Financial Management (PFM) directly addresses that concern. It's more than clear that the starting gun for the FinTech race has gone off - if your bank hasn't started racing yet, it's time! Your first goal: building and **rolling out** a best-in-class, **customer-centric digital banking solution**.

II. What customers want from banks

Welcome to **The Age of the Customer** - for FIs, this means shifting the banking relationship beyond transactional services to the very center of their customers' daily living experience. In summary, **YOUR CUSTOMERS EXPECT TO BE:**



III. Enter PFM

Given such a tall order, a fundamentally new approach to banking is needed, with an emphasis on delivering customer delight. Our experience shows that customers are ready for a new era, and the solution is customer-centric omni-channel banking with Personal Financial Management (PFM) as its essential core: it's the brain providing data-driven intelligence, and the face with beautiful design and intuitive experience. **Personal Financial Management (PFM)** is a software solution that helps to manage money more efficiently and make better financial decisions. It enables users to categorize their transactions and add accounts from multiple FIs into a single view. PFM also typically includes data visualizations to provide actionable insights that help users navigate and shape their financial lives more intuitively.



Initially, these tools didn't quite attain the level of consumer engagement the industry expected; results were mixed as some implementations were more successful than others. One reason is because early iterations of PFM required users to categorize transactions manually, monitor their budgets and micro-manage their finances, which was too time-consuming and hard to sustain. Even updated PFM tools may present more intuitive interfaces and nice-looking charts, but users still need to put in time and effort to log in separately to manage their money.

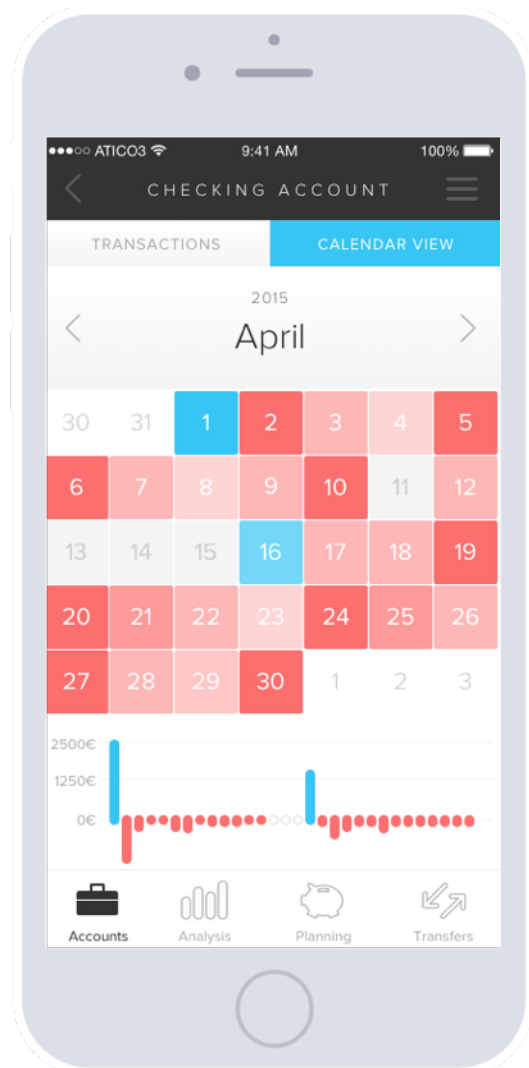
Current FinTech advancements combined with the knowledge that technology should adapt to the way we use it, and not vice versa, situate PFM at the core of digital banking strategies. That's why it's time for an updated definition:

PFM forms the essence of the digital banking experience. The tool offers omni-channel access to the full suite of banking features, being seamlessly integrated with core banking systems. PFM categorizes transactions automatically with precise accuracy. It can aggregate accounts from other institutions, from banks to utilities, insurance, airlines and more. By providing the intelligence, learning and analytics to guide users to sounder financial decisions, PFM ultimately establishes stronger engagement between customers and their bank.

IV. Designing your PFM solution

Just as customer needs and situations vary, not all PFM tools are created (or implemented) equally. Some customers will want a tool that analyzes their past financial behavior in order to help them make smarter future decisions. Others simply need to know exactly where they stand financially here and now in a more insightful and intuitive way. Country-based localization is also a factor here - 80% of American households don't budget, whereas the need for budgeting tools in post-crisis Iceland have boosted PFM adoption rates significantly.

For banks, it's about offering a solution that creates frictionless experiences for users - experiences that are built upon the solid foundation of your secret weapon: **data**. Let's dive deeper into what that solution should look like in more concrete terms.



5 CORE FEATURES TO DELIVER ON CUSTOMER NEEDS

The bread and butter of PFM, these are the critical functionalities that must be present if your solution is to meet customer expectations.

1.Transaction analysis - The foundation of PFM consists of two backend and frontend components, respectively:

► **Automatic categorization of transactions** - Best-in-class categorization means your PFM solution is capable of near-flawless labelling of transactions. With up to 99% accuracy, manual categorization should be the exception, not the rule. The automatic



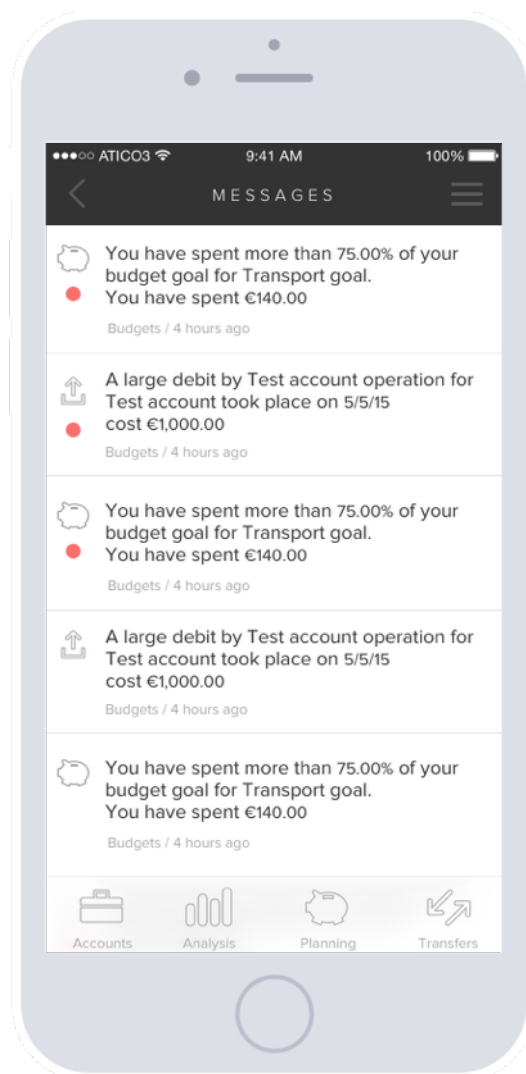
categorization engine should provide complete information about each and every transaction. This is all about accuracy and context - pretty data visualizations are the icing on the cake. In the rare case that users encounter an uncategorized purchase, the best PFM solutions make it effortless and even fun to manually categorize using techniques like gamification. As new transactions are encountered, new merchants are identified so that the engine "learns" and adds to the database by leveraging the PFM user network ("crowdsourcing") and ensuring categorization and merchant identification processes are tightly linked.

- ▶ **Intuitive Visualizations** - PFM needs to be effortless. Users are unlikely to invest any time in a tool that does not offer them value and convenience from the first touchpoint - that means the moment they log into online banking. Information must also be extremely easy to understand. Every screen should instantly inform users what's going on with their money in the most intuitive format possible. That means going beyond the pie chart to display information via calendars, heat maps, timelines, etc. Transaction details should be comprehensive yet instantly comprehensible - look for a solution that uses responsive design and frictionless UX. Combined with the power of highly accurate automatic categorization working in the background, users should be able to quickly and easily understand their past financial behavior as well as plan for the future thanks to predictive analytics.
2. **Budgeting** - Let's be honest about the fact that nobody really likes making budgets - but since it's inevitable (and a key component of PFM), why not make the whole process of expense planning as painless as possible? Look for a PFM with a budgeting tool that offers automatic adjustment and data-driven suggestions based on past spending patterns.
 3. **Goal setting and tracking** - The cornerstone of all PFM activities, financial goal setting should be intuitive and actually encouraged by the PFM itself. Both short term and long term savings goals should be trackable through the entire consumer journey.
 4. **Expense planning** - One of the first (and sometimes, only) things users want to know when checking their balance is how much they can safely spend in that moment. Other users will want a better way to plan ahead, which is exactly what this core functionality should offer. Anticipated expenses can be

easily scheduled so that users know exactly where they stand financially at any given moment.

5. **Notifications across all devices** - Omni-channel accessibility means that users are instantly alerted on their preferred devices when something is up with their account, whether it's overspending, duplicated transactions or savings goals at risk. Every channel should be at their disposal from email to SMS, mobile to tablet to wearables. The alerts themselves should be relevant and contextual to fully optimize the omni-channel experience.

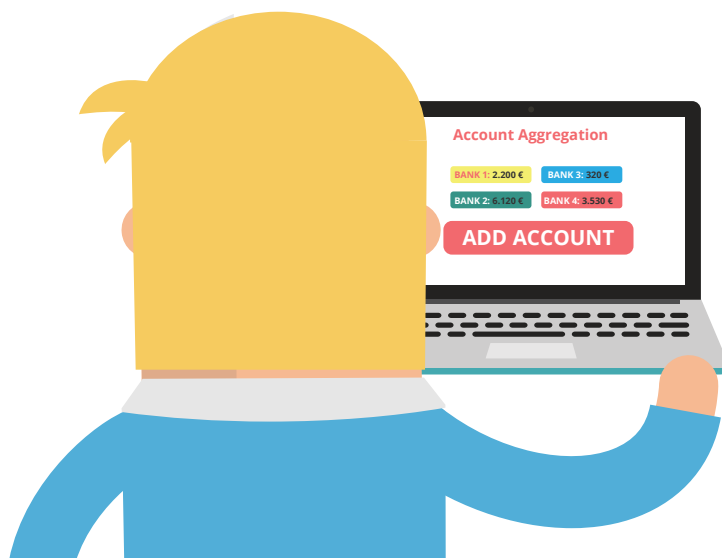
The mobile channel especially must be event-driven, since those push notifications serve as critical entry points for the online banking mobile app. Think of PFM as a bridge that also launches events requiring user attention and action, thereby constantly bringing them back to the online banking environment.



10 ADVANCED FEATURES AND KEY DIFFERENTIATORS

These unique functionalities set your PFM solution apart from the competition by exceeding customer expectations. They also show how bespoke white label solutions are highly preferable to out-of-the-box, plug-and-play products. Depending on the strategic goals of the bank and target segments, these features can be added to core PFM functionalities to generate even more value for your customers.

1. **Contextual offerings** - Nobody likes to budget, but everybody likes a good deal. The best PFM knows its user well enough to provide context-based advice and relevant recommendations, whether for financial or third-party products and services. Plus, the deals that come through are the ones users can actually afford, making them more likely to convert.
2. **Card-Linked Offers (CLO)** - This transformative marketing tool enables retailers to target highly relevant deals to card-holders through digital banking channels. At the cutting edge of machine learning technology and Big Data analytics, CLO is a seamless way for your customers to redeem context-based deals from merchants using targeted marketing software. When combined with PFM, your customers can see how much they can safely spend on a deal, as well as the average spend at that particular merchant.
3. **External account aggregation** - The average retail banking customer holds 12 different types of accounts across various financial institutions. The user will spend more time in an online banking environment allowing them to view all balances in one place. This is a crucial feature for engagement and retention, especially for wealthier customers. Choose a PFM solution that allows for the aggregation of as many accounts/entities as possible for maximum flexibility and convenience.



4. **Net worth analysis and wealth management** - Engage your users with global vision of their net worth, including a holistic overview of what they own and owe combined with a systematic approach to wealth creation, management and preservation.

The best PFM learns from the user's transaction history and from current interactions to project scenarios and offer the most relevant advice to help them plan for the future. PFM becomes a trusted personal advisor that understands the user based on their actual financial behavior, providing forward-thinking and cost-effective financial strategies. An automatic advisory service can be assisted by a connection to a dedicated physical financial advisor that has access to every detail of the user's portfolio, including assets accrued outside the bank. With PFM, your financial advisors know the customer better than ever before, and are able to complete interactions that began online at the branch. This holistic approach creates a stronger relationship that is especially relevant for premium customers who have extensive assets and more long-term financial analysis needs.

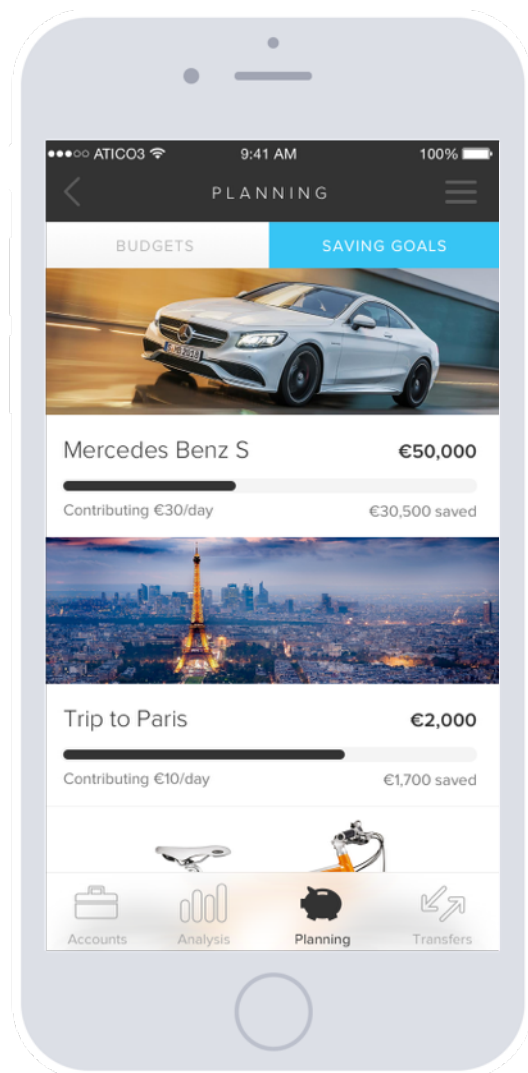
5. **Proactive notifications with actionable insights** - Rather than presenting users with a laundry list of transactions, PFM should offer users concrete actions in real time which they can take immediately to improve their financial health. Users won't invest their time looking for this information, so banks need to engage them via proactive notifications based on the intelligent analysis of personal data. New applications could unify checking, savings and business accounts, and allocate funds according to user-defined triggers (e.g. a particular savings goal). This information can also be linked to merchant offers. For example, a customer who wanted to buy a new car could add it to their savings goals, and receive offers on products to help them save faster, or get a great car insurance deal.

This feature can also be useful for inspiring users on how to build a better budget based on community spending patterns, and inform them on how major life decisions like having children or retiring early might affect their current financial situation.

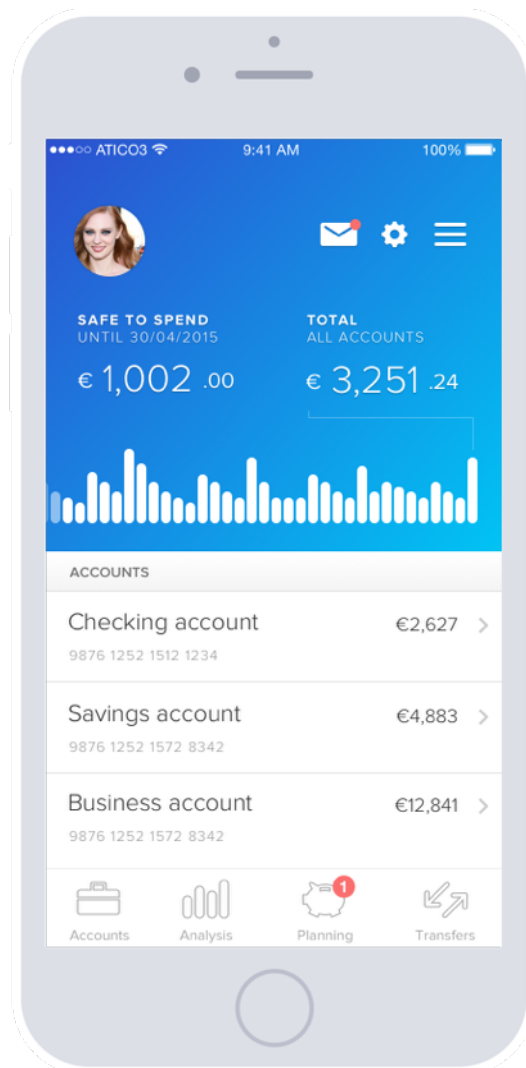
6. **Community comparison** - Your customers are curious about how they are doing financially compared to their peers. Leveraging data means enabling them to see how their income and spending behavior stacks up against others in their city and income bracket. Security and privacy is key, and the

best solutions offer this feature with complete trust that customer data is always kept safe.

7. **Timeline** - The human element of financial advisory need not be sacrificed in the shift to digital. A good PFM should also serve as the “always on” communication link liaising a dedicated advisor at the bank with their customers via their preferred channel, whether it’s email, phone, social media, chat, SMS/text message or setting up a face-to-face appointment at the branch. With social features not unlike Facebook’s timeline, your customer’s financial service needs can be met anytime, anywhere.
8. **Instant payments and transfers** - Look for a solution that enables bill payments and transfers directly within PFM. The best PFM solutions are so tightly integrated with online banking that they work in tandem to create a frictionless digital banking experience.
9. **Goal-oriented smart savings** - For each saving goal, a separate account is created. The best PFM solutions will automatically adjust savings goals based on user preferences and behavior, and use historical transaction data combined with predictive analytics to introduce products and services that will help users reach their savings goals faster. According to a TCS report, 60% of retail banks worldwide want to leverage this feature to boost customer engagement.
10. **Customizable interface** - Provide a wide range of widgets for different devices (web, tablet, mobile, smart watch) that can be mixed and matched to build the digital banking solution that perfectly meets your customers’ financial needs. Allow users to make their very own personalized interface with the widgets



that are most relevant to their profile, while gaining valuable data insights on which products and services work for your clients (and which don't). Support multi-language content to target a wider audience. Integrate a bespoke look and feel adapted to your bank's branding, providing the user with a frictionless omni-channel experience. All these personalization capabilities positively influence user uptake and engagement.



V. How PFM benefits banks: proof points and ROI

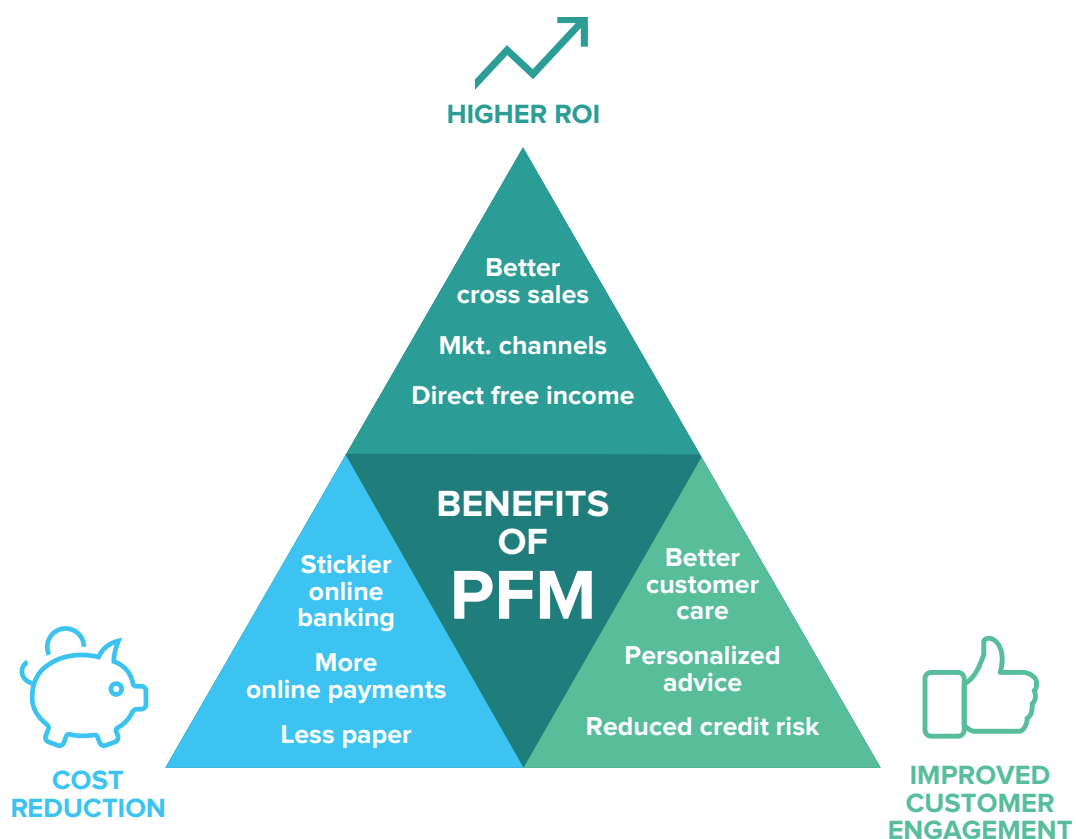
PFM has considerably high value generation potential across key departments within retail banking operations:

- ▶ **Marketing** - Building a solid set of PFM tools is a great way to differentiate from competitors and win industry recognition by positioning your bank's brand at the forefront of innovation within the financial technology space. As a generation of digital natives (Millennials) comes of age, they need a bank that is as tech-savvy as they are.



- ▶ **Channels** - Online banking becomes instantly more attractive and adoption rates start to climb when PFM is built using responsive design, engaging UX and gamification. Your customers will not only access but continue to use channels through which the omni-channel experience has been properly promoted. In fact, PFM users not only access online banking twice as frequently as non-users, but also double their time spent there due to an increased number of touchpoints.

- ▶ **Customer service** - With the average retail banking customer possessing over 10 different kinds of accounts across a variety of FIs, the bank that offers PFM is far more likely to become his or her primary bank. Industry research indicates that over 80% of users are pleased with PFM and will use it regularly in the future. In one survey, 66% of users said that PFM actually improved their financial situation. Retention rates can reach 98% among PFM users, 25% of which say they are less likely to switch banks. Some banks have seen their closed accounts reduced by 50% after introducing PFM.
- ▶ **Sales** - PFM can help attract new customers whose current bank lacks the tool, and push sales to existing customers. Cross and up-selling opportunities are especially abundant when personalized offers are built into PFM tools, meaning the right customer is offered the right product at the right moment. In fact, PFM users purchase up to 4 x more financial products compared to non-users, and tend to increase their total number of accounts by almost 20% after one year of using PFM. One Forrester study identified that in 4 years, mid-sized banks under scrutiny were able to generate over 10M USD in revenue with the help of PFM.



Empowered with the full picture of their finances, your customers engage more often and are proven more likely to remain loyal. Plus, harnessing insights from data means you can understand and segment your customer base to offer them targeted solutions relevant to their specific financial situation, thereby boosting the growth of your business.

One Total Economic Impact (TEI) Study by Forrester Research concluded that implementing a PFM solution resulted in a **risk-adjusted ROI of nearly 25%** with a payback period of less than 24 months. The solution provided risk-adjusted benefits totaling **\$16M over four years** for the bank under scrutiny, including a customer retention rate of **99%** leading to cost avoidance savings for acquiring new customers.

VI. Finishing strong

PFM has evolved to become the cornerstone of online banking and must be embedded at its very core. The tool has evolved considerably over the past 30 years and is no longer a nice-to-have bell or whistle add onto online banking, but rather the **integral foundation of digital money management**. Think of PFM as the motor that drives engagement between the account holder and the bank. Would you buy a car with no engine?

Improving your customers' financial lives begins by offering intelligent money management tools right at their fingertips. The first step is to choose a PFM solution that is **SUPER**:

- ▶ **Seamlessly integrated** into the daily customer experience and indistinguishable from the online banking environment. PFM should never be separate so users do not feel like they have to access an external application. When PFM is truly baked into online banking, that's when the magic happens beyond the pie chart.
- ▶ **Ubiquitous:** Omnichannel-enabled as far as possible so that customers can interact with you anywhere, at any time and on the device of their choosing. Give them the flexibility to manage their finances their way, however fits them best.
- ▶ **Personalized** to meet the context-specific needs of your customers who have unique lives, individual preferences and financial situations.
- ▶ **Empowering:** enable customers to take action by themselves, by whatever means they choose. This is vital for Millennial consumers, who value full control, frictionless UX and digital autonomy.
- ▶ **Robust:** Only a strong data-driven product with machine learning capabilities can deliver the contextual insights you need to understand and empower your customers.



Getting PFM right doesn't end with product specs, however. In order to reap the full range of benefits offered by PFM, namely customer retention and a robust ROI, the roll-out project must be executed in a way that address all phases of a successful implementation process. The key steps of a successful roll-out are detailed in the next white paper in this series, [PFM: 12 Steps to Implementation Success](#).

Once you understand exactly what is needed to prevent your customers from managing their finances outside your bank, all that's left is to choose a trusted FinTech partner to help you build and deploy the optimal digital banking experience that is perfectly aligned with your strategic growth goals.





How Strands can help

In 2008, Strands became the first provider to deploy PFM in Europe and continues to implement next-generation PFM technology worldwide.

With over 10 years of experience working with the world's top-tier banks, our agnostic suite of financial software solutions can integrate seamlessly with virtually any core banking system.

Strands understands the importance of choosing a partner whose products and services are well-aligned with your growth strategy, branding and strategic vision. That's why we offer full customization of our entire suite of white-label products. Automatic categorization, smart budgeting and predictive analytics are among many features that can be easily integrated within any existing online banking environment.

This unparalleled industry experience is complemented by the most innovative product suite on the market, designed and tested by an agile team of data scientists, machine learning experts and experienced software engineers.

Our award-winning personal finance solution, [Strands PFM](#), is specifically designed to drive engagement between account holders and financial institutions. With stunning data visualizations and an ultra-personalized look and

feel that can be built directly into any online banking interface, Strands PFM makes financial planning effortless and fun.

Leading global banks including Barclays, BBVA, BNP Paribas, Bank of Montreal, Deutsche Bank and PostFinance are deploying Strands PFM to transform their online and mobile banking propositions from a transaction-based “one-size-fits-all” approach into relationship-driven, engaging and customizable propositions.

Learn more about [how to get PFM right](#)

See Strands PFM in action: [Demo Video](#)

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ABOUT STRANDS

Strands develops innovative software that enables banks to offer personalized digital banking experiences. The Strands Finance Suite includes a comprehensive set of white-label solutions such as PFM, BFM, CLO and REC - all based on big data analytics and machine learning. In 2008, Strands revolutionized online banking by deploying the first PFM in Europe.

From our offices Barcelona, Buenos Aires, Miami and San Francisco, we serve banks worldwide including Abu Dhabi Commercial Bank, Allied Irish Banks, BAC, Barclays, Deutsche Bank, BBVA, BNP Paribas, Bank of Montreal (BMO), Israel Discount Bank and PostFinance.

