Mistakes to Avoid When
Building a Digital Bank

TEMENOS

THE BANKING SOFTWARE COMPANY

Introduction

Whether creating a challenger bank from scratch or adding a digital brand to an existing banking operation, launching a digital bank is plagued with pitfalls associated with the legacy ways of thinking and working at traditional financial institutions. This is a timely topic, as a recent Economist Intelligence Unit survey revealed that the top innovation strategy at 36% of retail banks is to build a green-field digital offering.

Technology choices – whether to build vs buy, how to drive agility in the process, and most importantly how to create a customer-centric experience – are critical today in a way that was never previously the case for traditional banks.

Temenos, which has thousands of global customers, has partnered to build and launch digital banks across dozens of markets and customer segments. From our experiences with these projects, we have identified some of the common mistakes financial institutions make when embarking on a digital banking project.

It is easy to see how these choices are reached, given long established patterns of legacy thinking in old models of banking. But if institutions keep repeating their old patterns in the new world, they risk compromising or undermining the many benefits of digital banking.

Here we have distilled 7 lessons about what not to do, and conversely what best practice looks like, when building a digital bank.

Rebuild,
Don't Redecorate

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When building a digital bank, it's easy to start with a traditional banking model in terms of 'products and services' and simply build a digital version of this. Don't do it.

One of the biggest mistakes made in early digital transformation efforts has been simply automating legacy, paper-based internal processes. Digital services should deliver significant improvements because they are not tightly mapped to the back-office silos and separate product workflows of the past. Instead, they can offer an experience built around the customer and combining multiple products.

Take the number of times an account holder is asked for basic identity information when applying for multiple products or adding new features. On paper, each of these processes requires a separate application and feeds a separate silo in the back-office, so multiple paper forms are required. This is highly irritating to the customer, especially for business customers requiring a large number of forms to first establish the account and then originate specific products or fulfill compliance requirements. Digitizing the same process is a poor choice.

And some old tried and tested products and features will simply become redundant in the new world – like remittance processing – as bills are settled digitally.

Banks should optimize the new experience for customers, thinking about how they might save them time and hassle. For a mobile customer, pre-fill as much as possible from internal systems, using an API based service layer to adapt the data. Use APIs to connect to outside address lookup and aggregation services, in order to eliminate error prone data input. And never ask for the same information twice, especially if the customer is not "new to bank".

EQ Bank in Canada designed its all-digital bank to be branch-less from the beginning. Using Temenos as part of its platform, it focused on features and experiences to differentiate in the market crowded with traditional financial institutions. It was quick to market too, launching within just 18 months of the project's start.

Temenos Infinity is the market-leading product focused on the customer experience. Creating a single customer experience layer spanning all the underlying systems, it is independent of core, loan servicing, or technology vendor. Design-led and mobile optimized, it allows creation of a new digital experience even with existing silos.
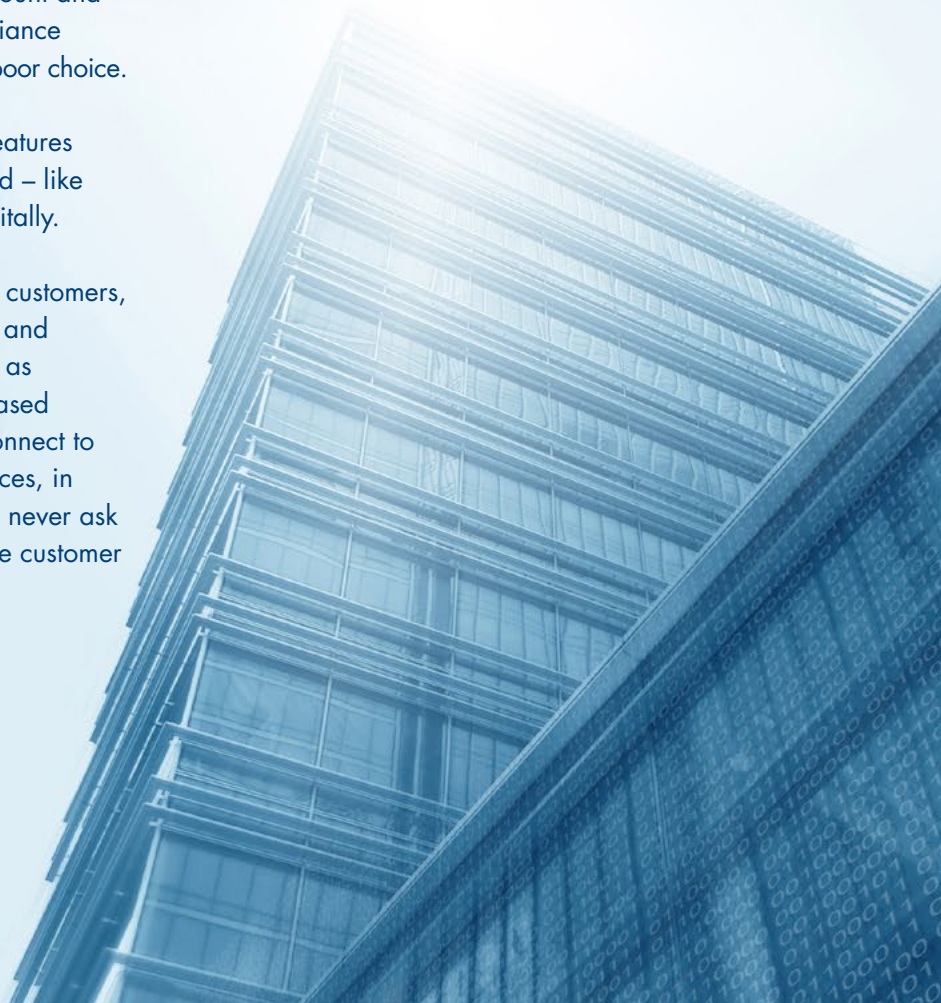
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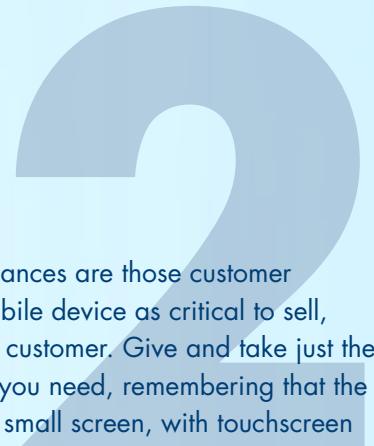
Designing a new digital bank, whether a challenger entrant or a new brand from an existing player, should start with the customer experience. That approach is very different from how banks were built in the past, from the inside out. Start by ignoring the old banking rules and engagement models, and instead think like a prospective customer.

Successful digital banks begin by looking at what will attract new customers, to how to deliver the best possible experience, and how to make the bank 'sticky' so that customers are never tempted away, and go on to expand their use of its services.

But How?

- **Start with customer journeys.** What are the specific situations where your new digital bank can offer a more compelling experience more simply than customers will find available elsewhere?

- **Be mobile first.** Chances are those customer journeys involve a mobile device as critical to sell, service and retain the customer. Give and take just the minimum information you need, remembering that the customer will be on a small screen, with touchscreen input, and a lot of distractions. A Tier 1 Temenos client in the US sees more Checking Account Opening on mobile than desktop, and completion rates on mobile are higher!

- **Do it fast and test it.** Test your new ideas quickly with real customers to see if they fly. The customer experience is rarely right first time, so why not get new experiences and features into production quickly – and capture live analytics data to show you where to focus any improvements. Better that than spend months and big budgets perfecting something that customers hate and reject. To quote Guy Kawasaki "If you are not embarrassed about your product at the time you launch it, you've launched too late." More on testing later.

- **Use behavioral analytics to identify key customer friction points.** Identify where their activities stall, incur errors, or drop off/are abandoned. Then rapidly iterate, making small, incremental changes and measure the improvements over time. Note that while platforms like Facebook, Linkedin and Netflix measure their success by the amount of time users spend on the platform, the measure of a successful digital bank might be how little time customers have to spend to do what they need to do.

- **Personalize the customer experience.** Use everything you know about them – from their transactions, account histories, even social media and location data, and make offers that not only resonate with them but also demonstrate how well you understand them.

Bank Leumi in Israel put the customer experience central to the development of its digital bank Pepper. Using Temenos as part of its new digital platform, it created Pepper to be a 'bank that people love'.

Varo

GRASSHOPPER
BANK

Temenos' work with digital banks globally, such as **Varo** and **Grasshopper** confirms that the leaders take a "customer first" approach, use analytics to optimize the experience, and personalize the journeys so the customer feels valued.

Don't Ask Your Friends

Testing is critical, but don't depend solely on friends and family testing to validate whether your product and experience will work. Your friends will be too nice, and they don't have to buy anything. Instead, act like a software startup. In addition to friends and family, run small scale tests with a live audience and measure results. Be prepared to learn from the metrics. You'll need to be agile and go through several iterations until you come close to getting it right.

A key to making this approach work is adopting a continuous integration and deployment approach. Part of what is known as DevOps, this methodology employed across the software industry is based on continually introducing, testing and deploying small changes. It depends on having a software infrastructure with features supporting DevOps, particularly optimized for cloud environments.

For example, a global Temenos banking customer identified changes to re-order steps in their retail customer journey, pushing the "hard questions" later in the process to avoid abandoned sessions by getting the customer "invested" in completing the journey. While the data captured was the same, the user experience flow changed. Normally, code changes of this magnitude would require a 9 month release cycle prior to introduction. In this case, small changes isolating just the customer experience were developed in one day, pushed through a week of testing, and deployed in production within 10 days, a better than 90% reduction in time to go live.

Taking a cloud native, cloud agnostic approach, Temenos Infinity brings two key advantages to this scenario:

- Behavioral Analytics throughout the entire customer journey identify points of potential improvement, highlighting problems from real-world results.
- A focus on agility, allowing continuous integration and deployment to apply the analytic results and measure real improvement.

The lesson – it won't be right the first time, but continuous testing, measurement and iteration of customer journeys with live audiences will yield the same improvements achieved by software leaders like Spotify and Netflix.

Don't Confuse Manufacturing & Distribution

If we think of a bank as a factory, we can appreciate that different priorities and refresh cycle will apply to the respective systems and processes for the back-office (manufacturing) versus the front-office (distribution). For instance, manufacturing favors predictability and a long-term cycle, while distribution needs the agility and freedom to react to changing customer needs and preferences. As well as needing to evolve rapidly, customer–facing processes and systems need to exist with multiple variations running and being tested in parallel for different products and channels.

Unlike monolithic bank IT structures of the past, a digital bank cannot function optimally with a single integrated system that requires a manufacturing change in order to add new distribution features.

This presents a challenge, since flow of data between Manufacturing and Distribution is critical to the end-to-end process. In the modern digital banks, the key is separation of the systems via documented APIs and loosely coupled micro-services. In practical terms, that means changes in one system do not affect the other. While Temenos can deliver both the front and back office, these are now discrete products, API connected, and can just as easily connect with other vendors' service layers.

For Manufacturing, a key constraint is capacity. By delivering a cloud-native, cloud-agnostic back-office, Temenos powered banks can elastically scale their Manufacturing to meet changing demands at the lowest cost.

Agility is the key to Distribution. Temenos Infinity unifies all customer journeys on an architecture optimized for rapid iteration and improvement.

And by creating a core-independent Distribution, gone are the days when a user interface change would require coding and integration changes in the core.

Beware the Iceberg

5

A digital banking platform is like an iceberg, shining visibly above the surface but with the bulk of it hidden under water. And if you just pay attention to the obviously visible part of the iceberg, your ship can run into the big piece underneath, inviting disaster.

To avoid trouble, more attention needs to be placed on the platform that clients never see, but that supports the weight of their user experience. This underlying infrastructure is where rapidly changing product catalogs, flexible decision engines, automatic document generation, integration to new fintech services and the ability to start, save and resume an onboarding transaction are managed. These less visible elements constitute the hard parts of building a new banking platform, hidden from view but critical to the operation.

> First Tech Federal Credit Union, one of the largest financial institutions in the US, used Temenos Infinity to get its foundations right first. Beginning by integrating one product to prove the architecture's robustness, it rapidly expanded to 47 products – from deposits to loans to insurance – all supported on the same, proven platform.

Remember, if you just focus on the look and feel, and don't plan on how to build a scalable and flexible platform underneath, it's a Titanic mistake.

Don't
Go It Alone

For a complex and scalable digital bank, there will be dozens of specialized capabilities that need to be part of the solution and trying to build or integrate them with internal development can overwhelm your ability to deliver. Services like identity verification, fraud detection, risk scoring, and payment services need to be integrated and orchestrated into the complete digital banking solution. But why not take advantage of existing, proven services that have been pre-integrated or are available off the shelf? As long as you're building your digital bank on an open, cloud-agnostic platform, all of these options should be available to you.

Temenos comes with a marketplace of integrated services, all managed via our banking platform. This leaves fewer integrations, lower risk, and a faster speed to market for our banking clients.

When one of our Tier-1 banking clients began experiencing a rapid escalation of fraudulent transactions linked to a new product offer, it needed a new fraud screening approach – quickly. Instead of having to wait for months of design, development, test and release cycles to integrate with its chosen fintech solution, the bank was able to access this as a pre-integrated capability – ready to be called via API from the digital banking platform. The process flow was modified quickly, and the new cloud-based service implemented in days, not months.

Easy integration can also inspire all sorts of new customer service innovation. For instance, a startup bank might want to become more integrated into customers' lives via broader connectivity with their lifestyles.

API-based architectures pave the way for this to happen. Links to Amazon could advise of an overdraft before a purchase, while buying concert tickets could trigger a request for payments from friends in a chat group. The Temenos Marketplace of integrated services and partners takes the burden off the digital bank, putting it on the banking platform. That leaves fewer integrations, lower risk, and a faster path to go–live.

The lesson to take away – use APIs and services that have already been proven. Then use your internal team to understand and work with the external services the digital banking platform already offers.

Don't Reinvent the Wheel

The most important mistake to avoid when launching a digital bank is using your technology investment and precious time on the wrong parts of the project – things that are already commercially available and don't differentiate you in the market.

A 2018 Forrester study found that the most successful digital banking projects were those that applied a 'build, buy, extend and assemble" methodology. (https://www. temenos.com/engage/temenos-infinity). In other words, for basic infrastructure and core functionality, banks should make use of proven commercial platforms – where the software vendor spreads the cost of maintenance and enhancement across hundreds of customers, instead of the bank being burdened with development and maintenance internally.

This frees up scope for the bank to apply specialized, customer-focused expertise to build differentiating capabilities on top of the commercial platform.

A large Australian bank which had made a science of monitoring customer preferences came up with an optimal home equity loan program, which cut weeks from a typical customer journey. It had interviewed and observed dozens of clients engaging with the software as it passed through various iterations. Because it had built its system on Temenos's commercially-packaged digital banking platform, it was able to deliver the optimal customer experience at record speed. Because the core functionality was taken care of, the bank was able to invest in what made it stand out, rather than what made it the same.

Think back to the iceberg in item #5. The successful digital bank will use its own resources to optimize and differentiate the visible part, where their efforts can create a truly unique product and experience. In parallel, they will take advantage of a commercially delivered platform to supply the complex, but non-differentiating, hidden infrastructure underneath.

Banking on Best Practice

Over the last year, Temenos has taken more than 230 banks live with their digital transformations – with projects ranging from legacy replacements, to new digital brands at existing banks, to green-field neo banks challenging target markets.

These visionary banks chose Temenos because of the depth of our advanced technology:

- Design-led, customer experience-focused front-end 'distribution' capabilities adding enticing new features and differentiation;
- The flexibility of a cloud-native, cloud-agnostic digital banking architecture, with associated cost and scale benefits;
- An API-based micro-services architecture, enabling easy integration with other services, and continuous enhancements;
- Packaged model banks on a commercial platform to reduce cost, risk and time to market.

Temenos Infinity continues to demonstrate leadership with core-independent digital banking built on a modern architecture. Using this modern platform approach, Temenos is positioned to continue adding technologies, developed internally or acquired, covering customer journeys spanning acquisition, origination, and service across every banking channel.

Starting with the right partner allows a digital bank initiative to make the right choices and avoid the critical mistakes.

To find out more:
https://www.temenos.com/engage/temenos-infinity

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About Temenos

Temenos AG (SIX: TEMN) is the world's leader in banking software. Over 3,000 banks across the globe, including 41 of the top 50 banks, rely on Temenos to process both the daily transactions and client interactions of more than 500 million banking customers. Temenos offers cloud-native, cloud-agnostic and AI-driven front office, core banking, payments and fund administration software enabling banks to deliver frictionless, omnichannel customer experiences and gain operational excellence.

Temenos software is proven to enable its top-performing clients to achieve cost-income ratios of 26.8% half the industry average and returns on equity of 29%, three times the industry average. These clients also invest 51% of their IT budget on growth and innovation versus maintenance, which is double the industry average, proving the banks' IT investment is adding tangible value to their business.

For more information please visit www.temenos.com.

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