Measuring Customer Experience in the Banking Industry
Understanding the elements that go into the monitoring of the digital customer experiences you deliver

New regulations, evolving customer expectations, and increased competition are transforming the way banks engage with customers. As the banking industry undergoes rapid change, the ability of a company to reliably deliver an excellent mobile or online experience for their customers becomes a key differentiator.

The technology stack that underpins customer-facing mobile banking applications or APIs is extraordinarily complex, spanning decades of technical investment from mainframes to cutting-edge microservice clusters. IT teams need to innovate and move quickly in this environment as they face increased competition from fast-moving startups. Frustrating customers with outages or slow performance isn’t acceptable.

The foundation to improving and delivering best-in-class online or mobile customer experience is measurement. All too often, however, incomplete metrics are chosen to understand how digital customers interact with a bank, and critical issues that frustrate customers are identified slowly—or not at all.

This guide presents an overview of the three key dimensions that compose a digital customer experience, and what Key Performance Indicators (KPIs) to track to determine how well you are delivering digital experiences for customers.

Questions for great mobile and online customer experiences

Because the quality of your digital customer experiences can have such a profound impact on your business, it’s critical to properly measure the service-level quality of the digital experiences you deliver across three main dimensions:

1. **Availability**—Is it up and running?
2. **Functionality**—Is it working right?
3. **Speed**—Is it working fast enough?

Measuring customer experiences, by example

For deeper insight, let’s apply these dimensions to some sample contexts to examine the service-level quality of different digital experiences and identify the KPIs most relevant to your business and the digital customer experience that you’re delivering.

A mobile banking application:

1. **Availability**—Is the app being launched? How often does the app crash?
2. **Functionality**—Was the user able to view account transactions? Are there errors in the onboarding process? Are users able to log on?
3. **Speed**—Did the mobile app work smoothly on sign-in? How long does it take to display recent transactions?

Open Banking APIs:

1. **Availability**—Is API responding to inbound requests? Does it meet the regulatory uptime requirements? Is it available for users across different regions?
2. **Functionality**—Are there errors responding to API requests? What downstream systems are affected?
3. **Speed**—How quickly are requests satisfied? Are API requests getting faster or slower over time and as the system scales?

Unsurprisingly, different apps for different purposes have different critical factors. Starting with these user- and business-oriented metrics can help you understand the digital experience delivered by your technology teams.

### Establishing underlying metrics

While these dimensions help answer the high-level questions important to the business, we also want to drill down to the underlying technology metrics that feed into these dimensions. These lower-level metrics granularly address concrete technology layers that teams can work on. Examples include:

#### Availability
- User throughput
- Global service uptime
- Frontend uptime
- Backend uptime
- Mobile app launches
- Mobile app crash rates
- API uptime
- Third-party service uptime
- Server uptime

#### Functionality
- Frontend error rates
- Backend error rates
- API error rates
- Third-party error rates
- Key user-transaction errors
- Container-management errors
- Infrastructure errors

#### Speed
- Frontend response time
- Backend response time
- API response time
- Application transaction times
- JavaScript execution time
- Database query times
- Resource utilization
- Container health
- RAM, CPU, network latency
- Third-party service response times

The wide breadth of these health metrics reflects the increased complexity of modern application architectures and their underlying technology stack. Degradation of your digital customer experience can result from many different root causes, emanating from different layers of your technology stack, from the frontend to the backend/database to the supporting infrastructure.

- **Frontend example**: *Unnecessary AJAX calls in a single-page application.* A particular user interaction in a single-page application triggers multiple, duplicated AJAX requests to a backend service, prolonging load times for users of a desktop website.

- **Backend/database example**: *A bad database query does a full select statement.* This slows down the backend API service, which makes it unresponsive to the native mobile app requesting the data. The request times out, resulting in an intermittent mobile app crash.

- **Infrastructure example**: *Incorrect container service configuration leads to under-provisioning of infrastructure services.* Because there are not enough resources, requests cannot be handled promptly, overloading the load balancer and bringing down the system—the whole stack goes down.

### Managing the sea of data

With KPIs through the entire technology stack, the challenge arises around identifying the most important ones. Similar to the hierarchy of availability, functionality, and performance, we can identify the most meaningful underlying metrics to separate the signal from the noise.

The metrics closest to the user and the business best represent what’s actually happening. It’s a more authoritative test of the
end result delivered by your technology stack. If something is broken for a customer, that supersedes any positive indicators. This often means starting with actual page load times, mobile app launches, or scripted user-action monitors to understand how an app is working in the wild.

Conversely, metrics deeper in the technology stack can serve as early warning indicators. They're noisier and less explicit, but they can be useful for diagnosing issues that are impacting customers. In addition, these deeper metrics can help troubleshoot the root cause of customer-impacting issues. Use them to find those bottlenecking microservices or misconfigured infrastructure resources before those problems make their way to your customers.

**Next steps**

Technology teams can no longer limit themselves to just building and managing their part of the stack; they now bear responsibility for how their work impacts customers and the business. Monitoring your digital customer experience helps development and operations teams find and solve problems anywhere they're located.

Now that you understand the dimensions and KPIs that you want to track, it's time to get started on actually doing something about them. Check out our technical guide for Best Practices for Monitoring Digital Customer Experience for help optimizing your full technology stack and integrating DCX monitoring into your workflows. Then you're ready to show the impact of these improvements to the larger business.