



Task 1: What product metrics and critical events would you define and monitor for Inbank’s consumer loan online application flow? Why? Additionally, which tools would you use for tracking and analysis?

To ensure the performance and reliability of Inbank’s consumer loan online application flow, I would define and monitor *a combination of product funnel metrics, critical user events, and backend data quality indicators*. These allow us to understand how users move through the loan funnel, identify friction points, and ensure backend data integrity — especially in cases involving currency exchange rates, cross-border transactions, or automated credit decisions.

The ultimate goal is to enable a seamless, fast, and trusted customer experience, while also supporting regulatory compliance, risk control, and business growth.

Product Funnel Metrics (with detailed explanations)

Metric	Explanation and Importance
Application Start Rate	Measures the number of users who begin the application process. This metric reflects how effective our landing page and product positioning are. If we see high traffic but a low start rate, it may indicate unclear CTAs, lack of trust signals (e.g., testimonials, data protection badges), or poor mobile responsiveness.
Application Completion Rate	Shows how many users who start the form actually submit it. A low rate may point to overly complex forms, confusing field validation, or abandonment due to uncertainty. This helps us prioritize form optimization and field reductions.
Approval Rate	Indicates what percentage of submitted applications receive a positive credit decision. It helps us evaluate the alignment between our customer acquisition efforts and risk appetite. If approval rates are low, it may suggest that marketing is attracting low-quality leads, or that the credit model is too strict.
Offer Acceptance Rate	Monitors how many approved applicants go on to accept the loan offer. A drop at this stage could be due to uncompetitive pricing, lack of transparency in terms, or confusion in the offer UI. This metric helps us refine pricing strategies and optimize loan presentation.

Contract Signed Rate	Tracks how many users proceed from accepting the offer to signing the digital contract. Signing friction may occur due to ID verification steps, e-signature UX problems, or user hesitation. This metric tells us whether our legal and UX layers are aligned and intuitive.
Loan Disbursal Rate	Indicates how many signed loans are successfully disbursed to the customer. If we notice discrepancies here, it could mean technical or compliance issues on the backend. This is a critical metric for operational efficiency and final conversion.
Time to Decision	Measures how long it takes from application submission to returning a credit decision. Inbank aims to return decisions in seconds. Longer durations reduce user confidence and increase drop-off. This metric ensures that our decision engines remain fast and reliable.
Drop-Off Rate Per Step	Allows us to identify the exact step in the application flow where users abandon the process. For example, if a large number of users drop off during income declaration, we can investigate the design or user confusion at that step.
KYC Success Rate	Evaluates how many users successfully complete identity verification. This is crucial for onboarding compliance and fraud prevention. A low success rate might mean that the flow is too technical, too strict, or the documentation required is unclear.
Automated Decision Rate	Tracks the percentage of credit decisions made without manual review. Inbank automates ~95% of consumer loan decisions. Monitoring this rate helps us maintain scale, reduce operational costs, and ensure quick delivery. A drop in this metric might signal edge cases, fraud risks, or model drift.
Currency Rate Validity Rate	Especially important for cross-border transactions, this metric ensures that the exchange rate data used in loan pricing is complete, valid, and up-to-date. If the exchange rate is missing, null, outdated, or corrupted, it may result in incorrect APRs or regulatory risk. This metric ensures our backend data is strong enough to support compliant and accurate loan offers.

Critical Events (and why each is essential to monitor)

Monitoring these key user actions helps us break down the loan journey into measurable stages, understand conversion, and detect bottlenecks early.

Event	Why it Matters
Application Started	Marks the user's entry into the funnel. If this number is low compared to visits, it means our site or ads are not convincing enough to trigger action. It's the first signal of product-market fit or trust.
Application Submitted	Indicates users have completed and submitted personal and financial information. If many start but few submit, it suggests usability problems or cognitive friction. It's a direct reflection of form quality.
Credit Decision Returned	The moment where the user receives an approval or rejection. Fast turnaround (ideally under 10 seconds) improves trust and engagement. A slow or failed decision process here leads to lost conversions and bad user perception.
Offer Presented	At this point, users view the loan offer (amount, term, interest). This is where perceived fairness, clarity, and personalization matter most. A weak UX or confusing numbers can lead to high exit rates.
Offer Accepted	Users actively agree to the loan offer terms. If this event drops, the problem might lie in how the offer is framed, the competitive positioning, or subtle trust issues.
KYC Completed	Identity verification is often a drop-off point. It's mandatory for compliance, but if it's not handled well, users give up. Tracking this event helps us improve conversion by simplifying or clarifying KYC requirements.
Contract Signed	A binding action. This stage closes the legal part of the deal. If drop-off happens here, the issue might be digital signature friction, legal doubts, or mobile responsiveness issues.
Loan Disbursed	Marks the completion of the funnel. If contracts are signed but loans aren't disbursed, there's a backend failure. This is the most business-critical metric as it directly relates to revenue and cash flow realization.

Tools for Tracking and Analysis

To track all of the above reliably, I would use a mix of **product analytics**, **BI dashboards**, and **data quality tools**:

- **Hotjar or Mouseflow** – for session replays and identifying UX friction (e.g., rage clicks or scroll drops)
- **Power BI / Tableau** – for executive dashboards covering KPIs like conversion rates, disbursal volumes, and drop-off patterns (I prefer this one:)
- **Amplitude** – for A/B testing different funnel versions and measuring impact on conversion
- **Great Expectations / dbt tests** – for backend data quality testing (e.g., checking that exchange rates are not null, have correct format, and meet freshness thresholds)
- **Data Observability Tools (e.g., Monte Carlo, Databand)** – for larger implementations to monitor pipeline freshness and schema changes that can silently break business logic

Backend Data Quality Monitoring (for added business reliability)

In addition to tracking frontend behavior, we also need to monitor **data quality for backend inputs**, especially for cases like **currency rate feeds** that impact loan pricing. This is particularly important in cross-border lending and multi-currency environments.

Key data quality metrics:

- **Completeness**: Are exchange rates available for every currency and date combination?
- **Validity**: Are rates numeric and above 0? (e.g., a PLN-to-EUR rate of 0 is invalid)
- **Accuracy**: Are the rates consistent with the official sources (e.g., ECB or market data)?
- **Timeliness**: Was the rate updated before the transaction processed? Using stale rates causes compliance issues.

These metrics are applied to **critical data elements (CDEs)** like:

- exchange_rate
- currency_code
- exchange_date

If these elements are missing or incorrect, it can directly impact the APR calculation, pricing transparency, and loan eligibility — which may result in customer complaints, legal exposure, or financial misstatements.

Why These Metrics and Events Matter

Tracking both **user-facing events** and **data quality metrics** is critical to ensuring that Inbank delivers a consistent, fast, and trustworthy loan experience.

Product metrics and events help us:

1. Increase **loan conversion rates** by removing friction
2. Reduce **operational overhead** by increasing automation
3. Improve **customer satisfaction** through smoother UX

Backend data quality metrics help us:

- ✓ Prevent **compliance and pricing errors**
- ✓ Ensure **cross-border transparency** and **legal consistency**
- ✓ Build **trust with customers and regulators**

By combining both product and data, we ensure that **Inbank's consumer loan journey is optimized not just on the surface, but all the way through to the data pipeline** that powers every decision.